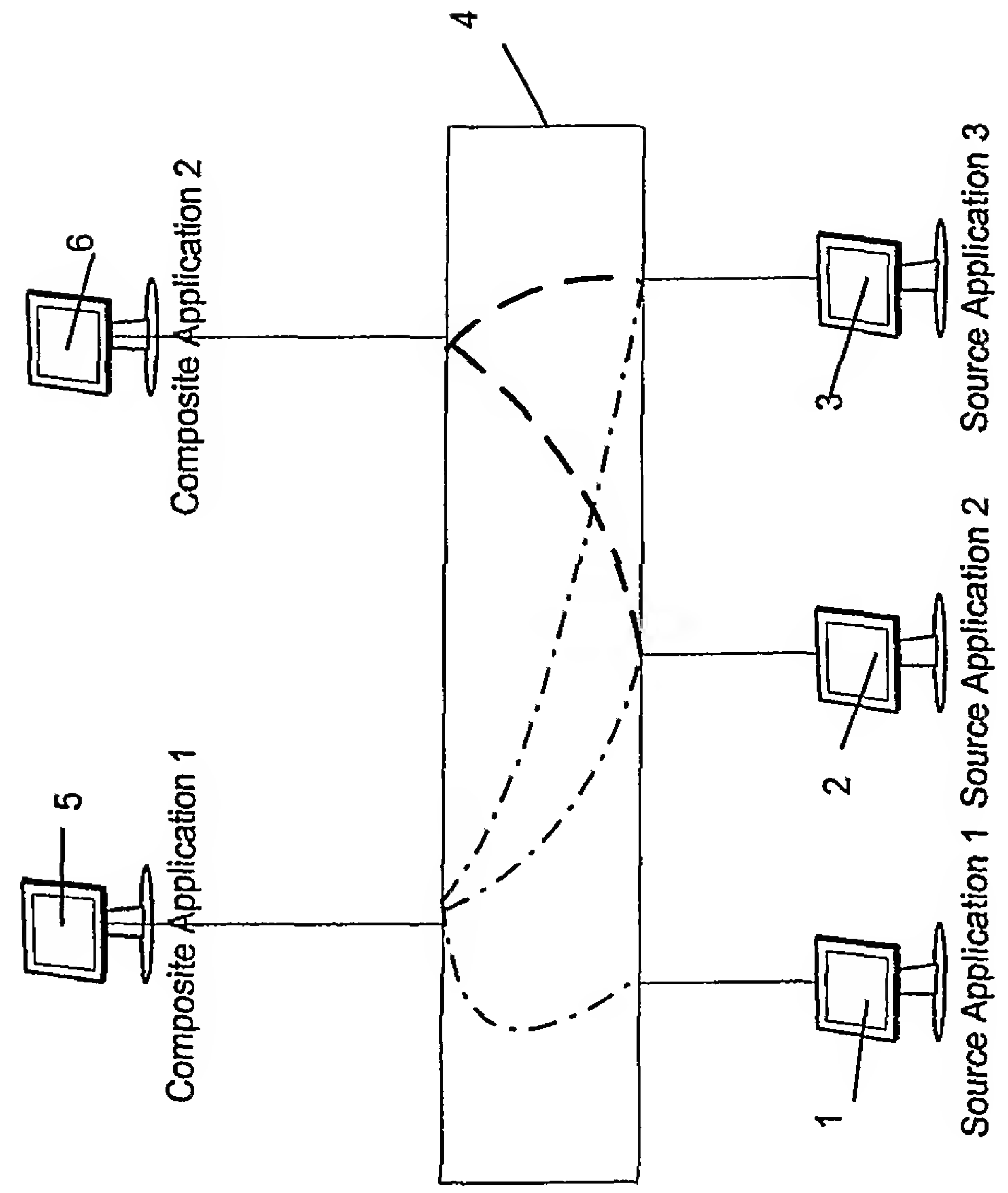

Composite Application 1
5
Composite Application 2
6
4
Source Application 1
1
Source Application 2
2
Source Application 3
3

FIG 1

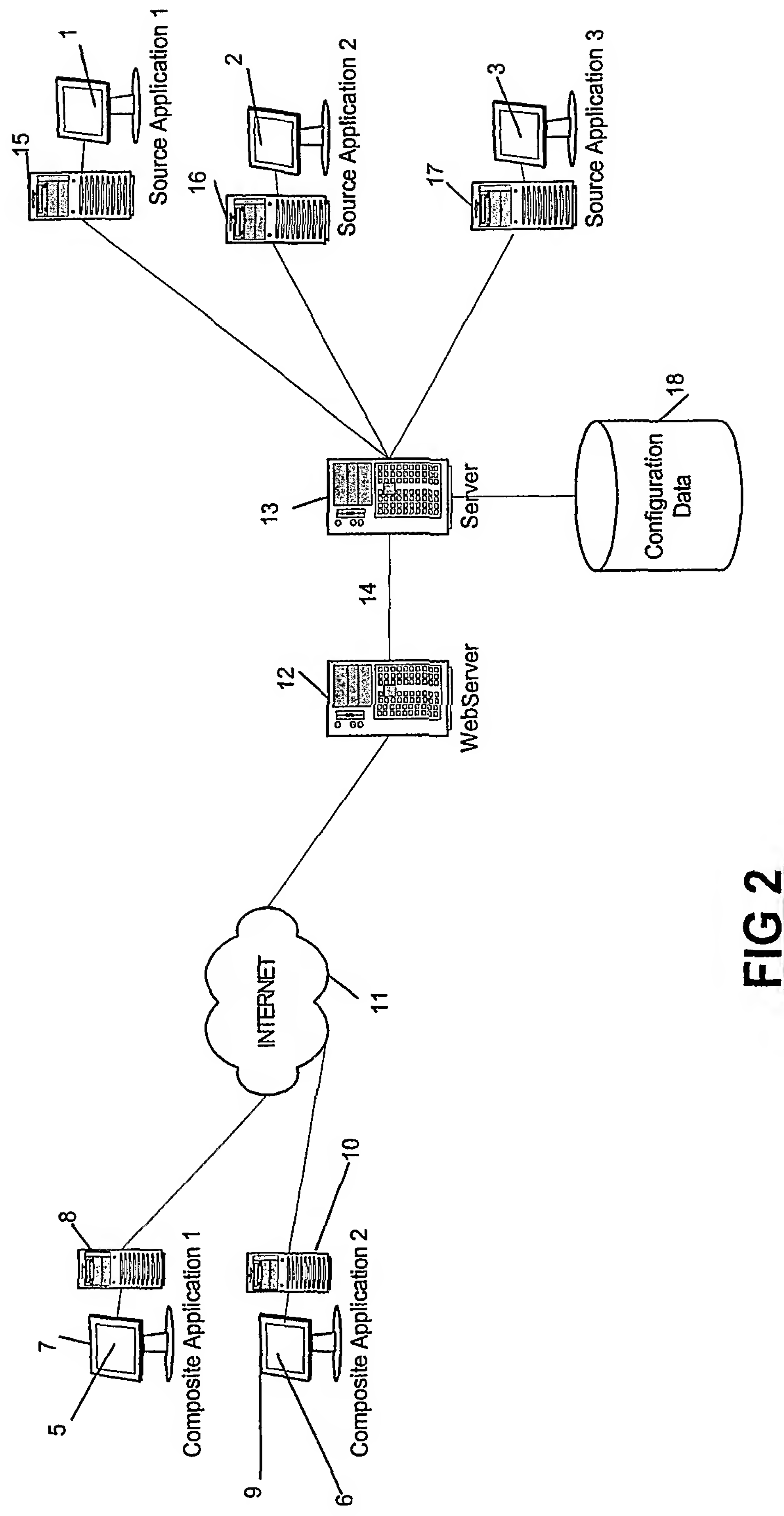

Source Application 1
1
15
Source Application 2
2
16
Source Application 3
3
17
Server
13
Configuration Data
18
14
WebServer
12
INTERNET
11
Composite Application 1
5
7
8
Composite Application 2
6
9
10

FIG 2

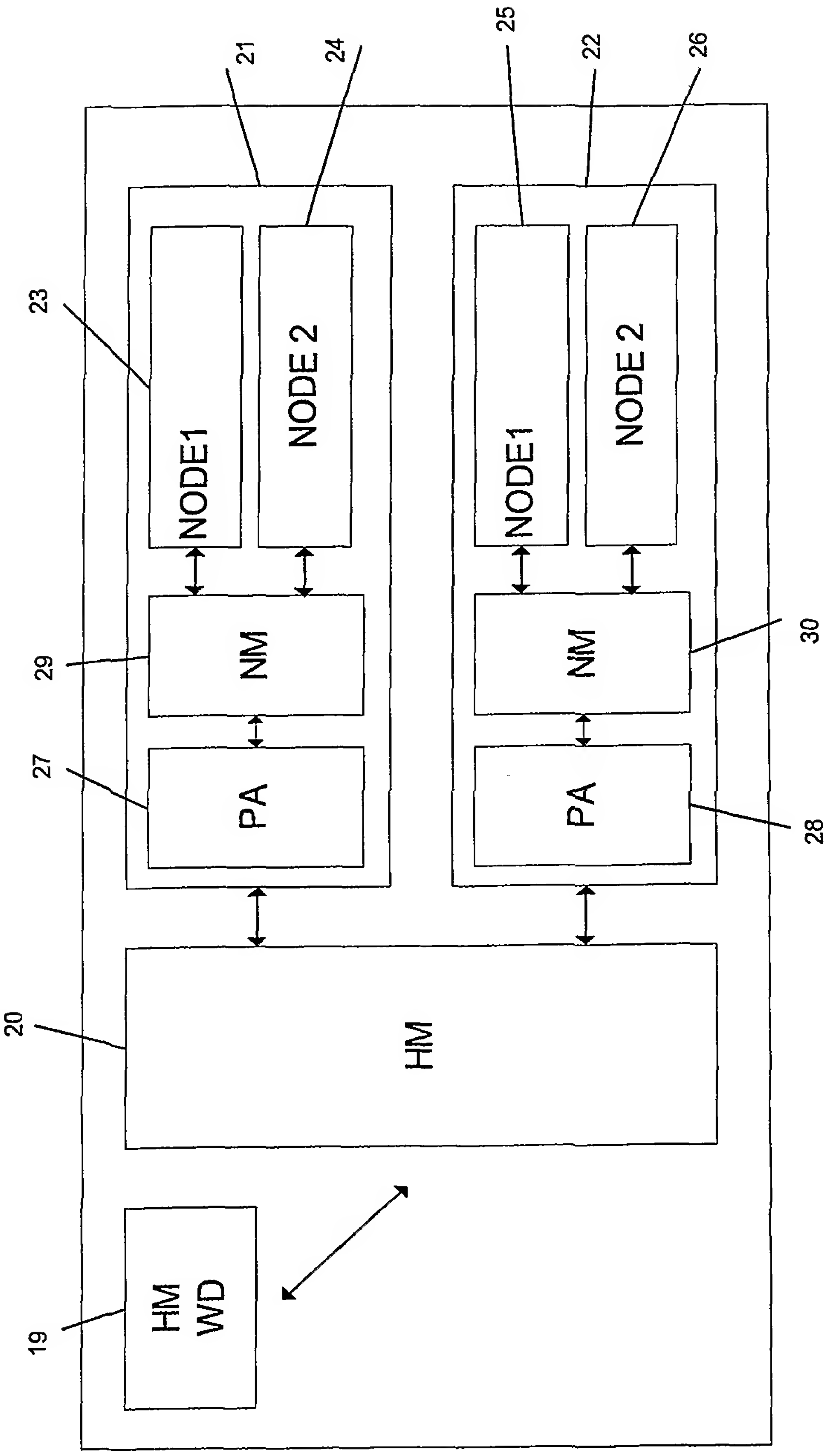

21
24
25
22
26
23
NODE1
NODE 2
NODE1
NODE 2
29
NM
NM
30
27
PA
PA
28
20
HM
19
HM
WD

FIG 3

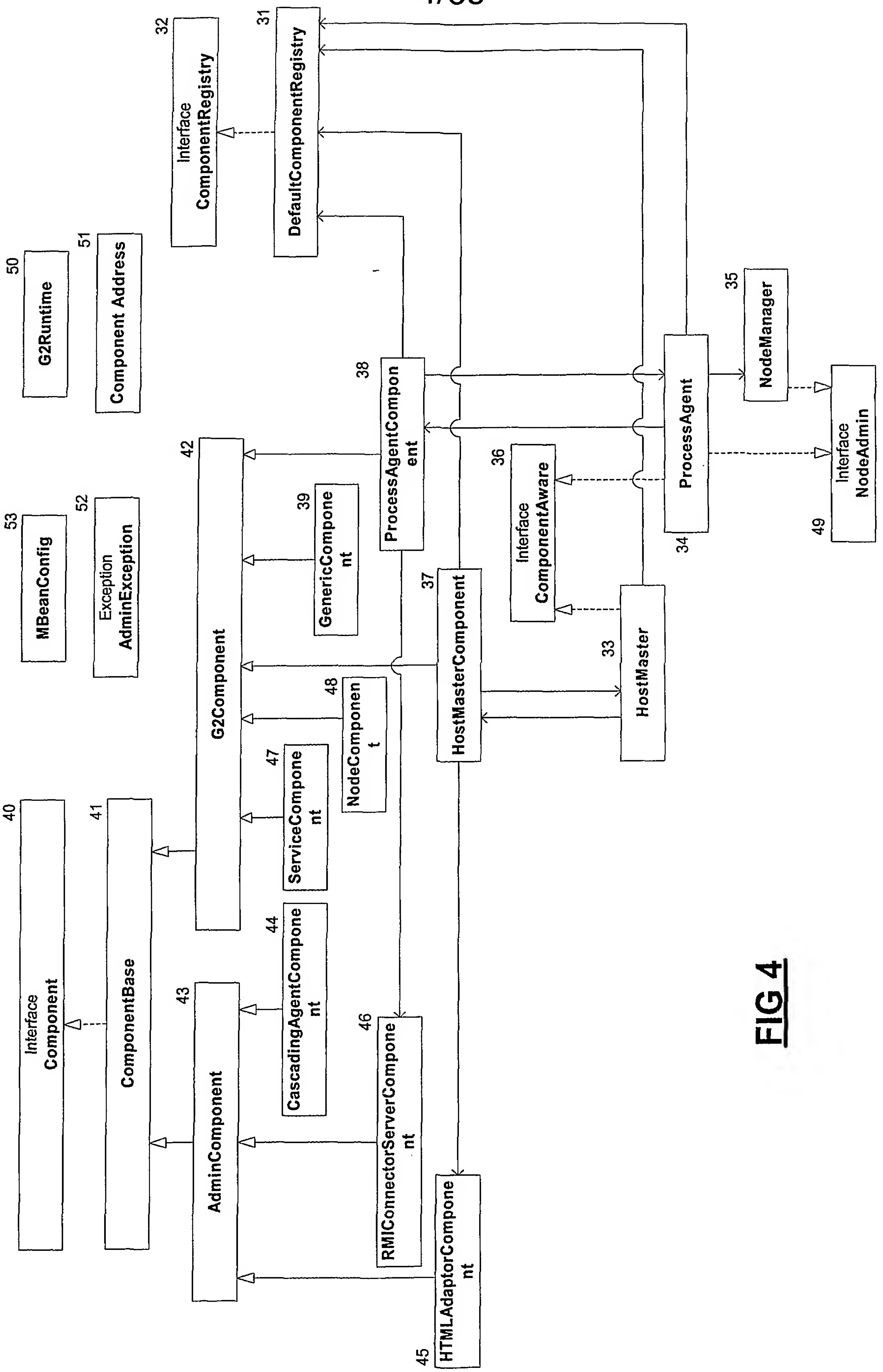

50
G2Runtime
51
Component Address
53
MBeanConfig
52
Exception
AdminException
40
Interface
Component
41
ComponentBase
32
Interface
ComponentRegistry
31
DefaultComponentRegistry
42
G2Component
43
AdminComponent
44
CascadingAgentCompone
nt
47
ServiceCompone
nt
48
NodeComponen
t
39
GenericCompone
nt
38
ProcessAgentCompon
ent
37
HostMasterComponent
46
RMIConnectorServerCompone
nt
45
HTMLAdaptorCompone
nt
36
Interface
ComponentAware
33
HostMaster
34
ProcessAgent
35
NodeManager
49
Interface
NodeAdmin

FIG 4
]

31

```
DefaultComponentRegistry
-DefaultComponentRegistry minstance=new DefaultComponentRegistry()
-MbeanServer mMyMBEanServer
-String mG2MbeanDomain
-String mDefaultDomain
-String mHostIpString
-String mProcessIdString
-Hashtable mRegisteredComponent
-DefaultComponentReistry()
-void init()
-void reisterMBeanObject( String domain, Object obj, Hashtable nvps)
-void unregisterMBeanObject(ObjectName target)
-void CleanUpMBeanServer()
-voidregisterComponent(Component c)
-void unregisterComponent(Component c)
-Component registerComponentAware(ComponetAware ca)
-Component registerGenericComponent(Object o)
-Component registerRmiConnectorServer(RmiConnectorServer o)
-Component registerCascadingAgent(CascadingAgent o)
-Component registrHtmlAdapterServer(HtmlAdapterServer o)
-void cleanup()
-Set findObjectNames(AddressMask am)
+Hashtable getComponentProperties(Component c)
+ComponentRegistry getInstance()
+ComponentAddress lookupComponentAddress(Object o)
+void waitForComponentRegistration(String objectname, int maxwaitseconds)
+Component registerObject(Object o)
+void unregisterObject(Object o)
+void addNotificstionListener(ObjectName name, NotificstionListener listener, java.lang.Object.handback)
+void invokeOnObject(AddressMask m, String method, Object[] params, String[] signature)
+void invokeOnObject(Object o, String method, Object[] params, String[] signature)
+void invokeOnObject(ComponentAddress addr, String method, Object[] params, String[] signaure)
+Set findLocalObjectComponents(AddressMask props)
+Set findGlobalObjectComponents(AddressMask props)
```

FIG 4A

32

```
ComponentRegistry
+Component registerObject(Object c)
+void unregisterObject(Object c)
+void invokeOnObject(AddressMask addr, String method, Object[] params, String[] signature)
+void invokeOnObject(ComponentAddress addr, String method, Object[] params, String[] signature)
+void invokeOnObject(Object o, String method, Object[] params, String[] signature)
+void WaitForComponentRegistration(String objectname, int maxwaitseconds)
+ComponentAddress lookupComponentAddress(Object o)
+Set findLocalObjectComponents(AddressMask props)
+set findGlobalObjectComponents(AddressMask props)
```

FIG 4B

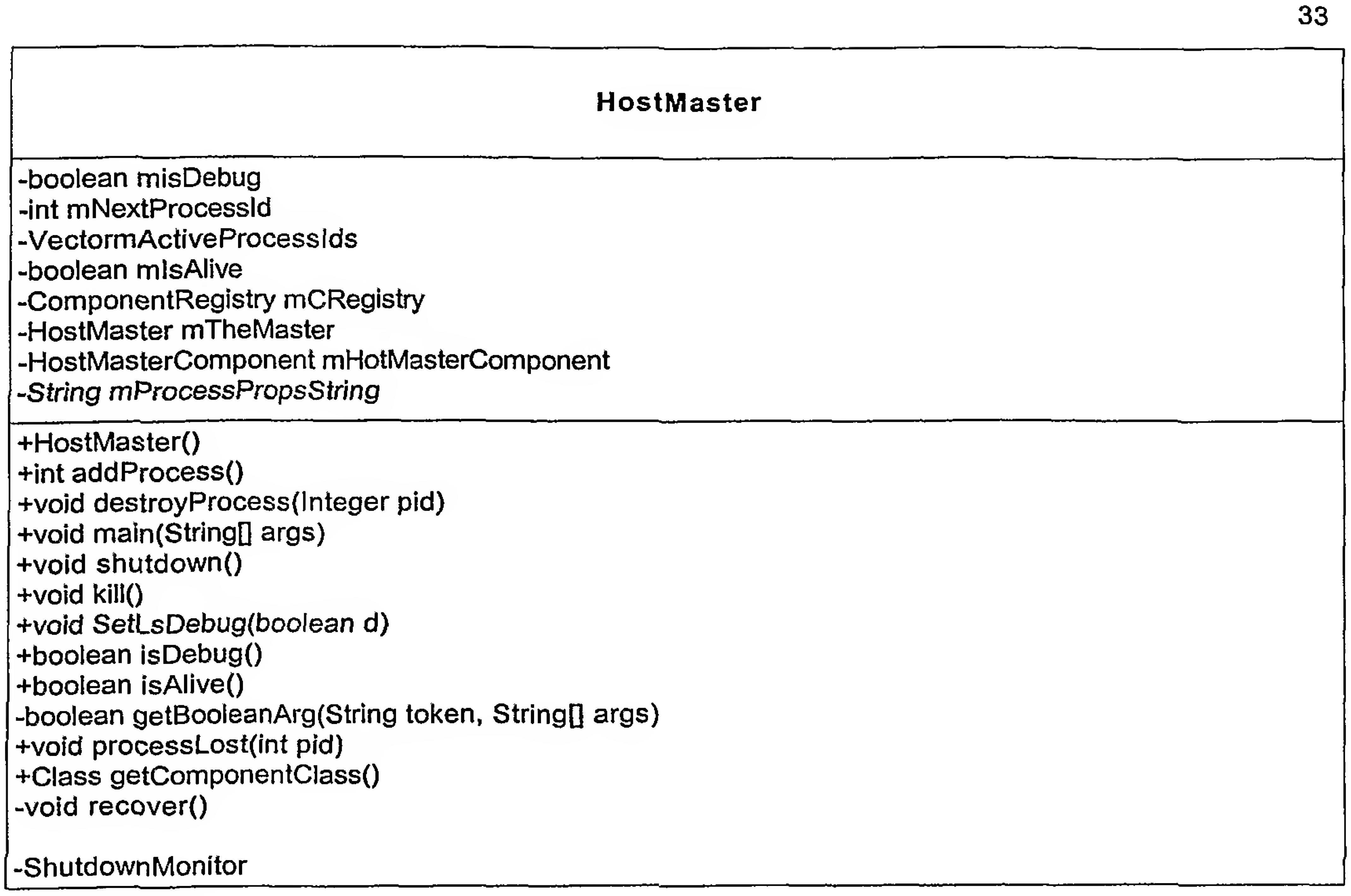

33
HostMaster
-boolean misDebug
-int mNextProcessId
-VectormActiveProcessIds
-boolean mIsAlive
-ComponentRegistry mCRegistry
-HostMaster mTheMaster
-HostMasterComponent mHotMasterComponent
-String mProcessPropsString
+HostMaster()
+int addProcess()
+void destroyProcess(Integer pid)
+void main(String[] args)
+void shutdown()
+void kill()
+void SetLsDebug(boolean d)
+boolean isDebug()
+boolean isAlive()
-boolean getBooleanArg(String token, String[] args)
+void processLost(int pid)
+Class getComponentClass()
-void recover()
-ShutdownMonitor

FIG 4C

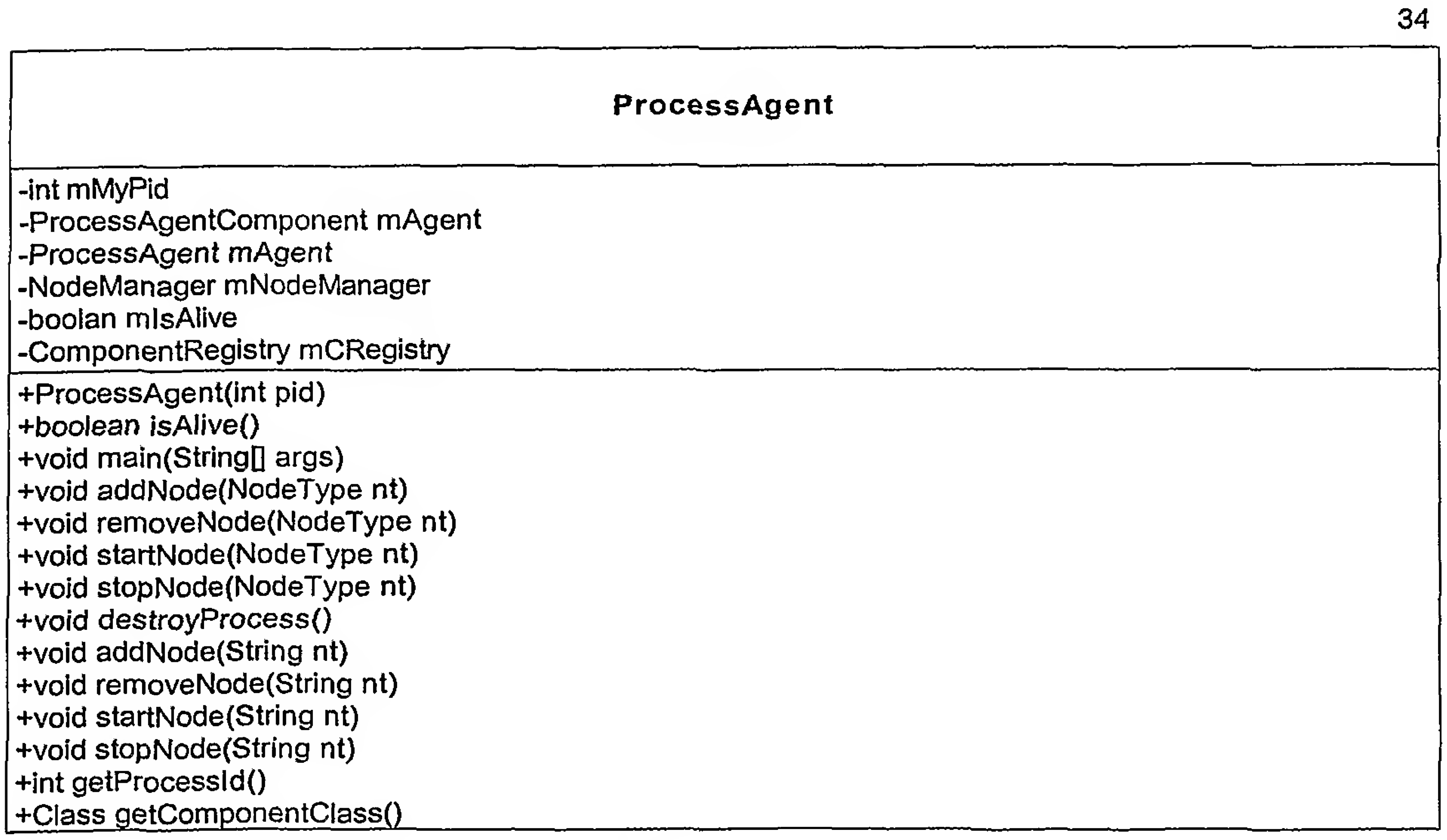
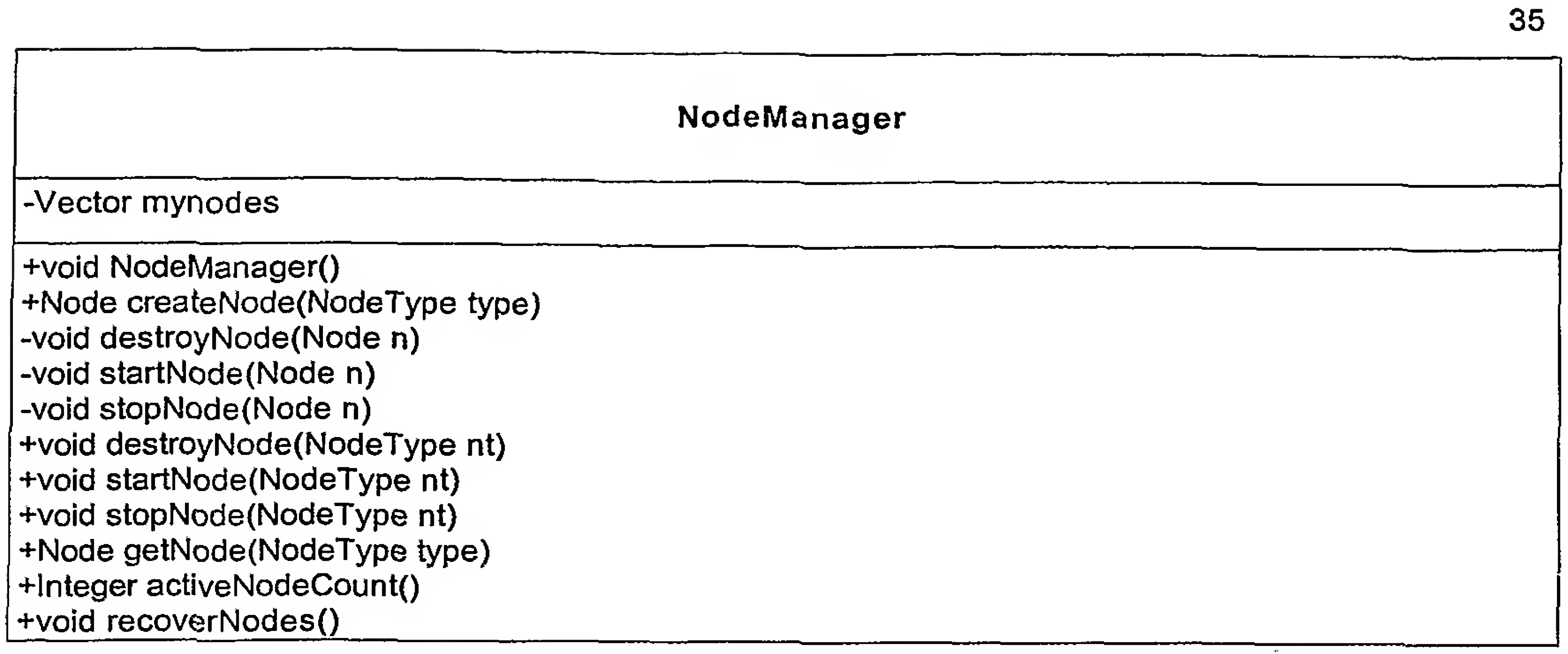
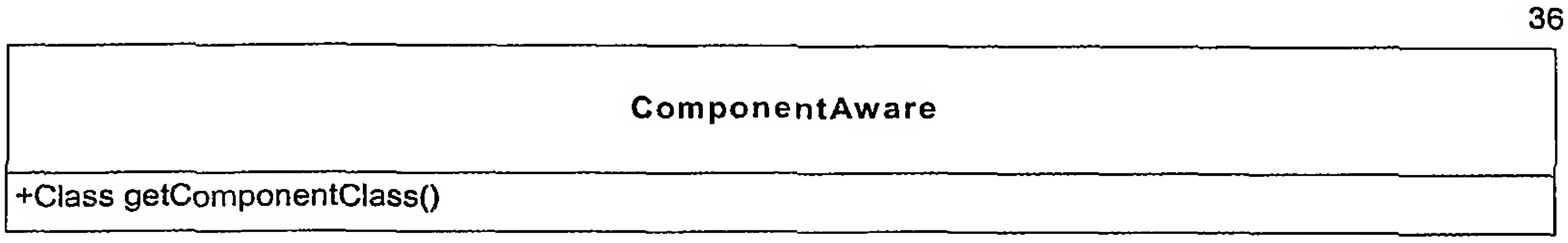

34
ProcessAgent
-int mMyPid
-ProcessAgentComponent mAgent
-ProcessAgent mAgent
-NodeManager mNodeManager
-boolan mIsAlive
-ComponentRegistry mCRegistry
+ProcessAgent(int pid)
+boolean isAlive()
+void main(String[] args)
+void addNode(NodeType nt)
+void removeNode(NodeType nt)
+void startNode(NodeType nt)
+void stopNode(NodeType nt)
+void destroyProcess()
+void addNode(String nt)
+void removeNode(String nt)
+void startNode(String nt)
+void stopNode(String nt)
+int getProcessId()
+Class getComponentClass()

FIG 4D



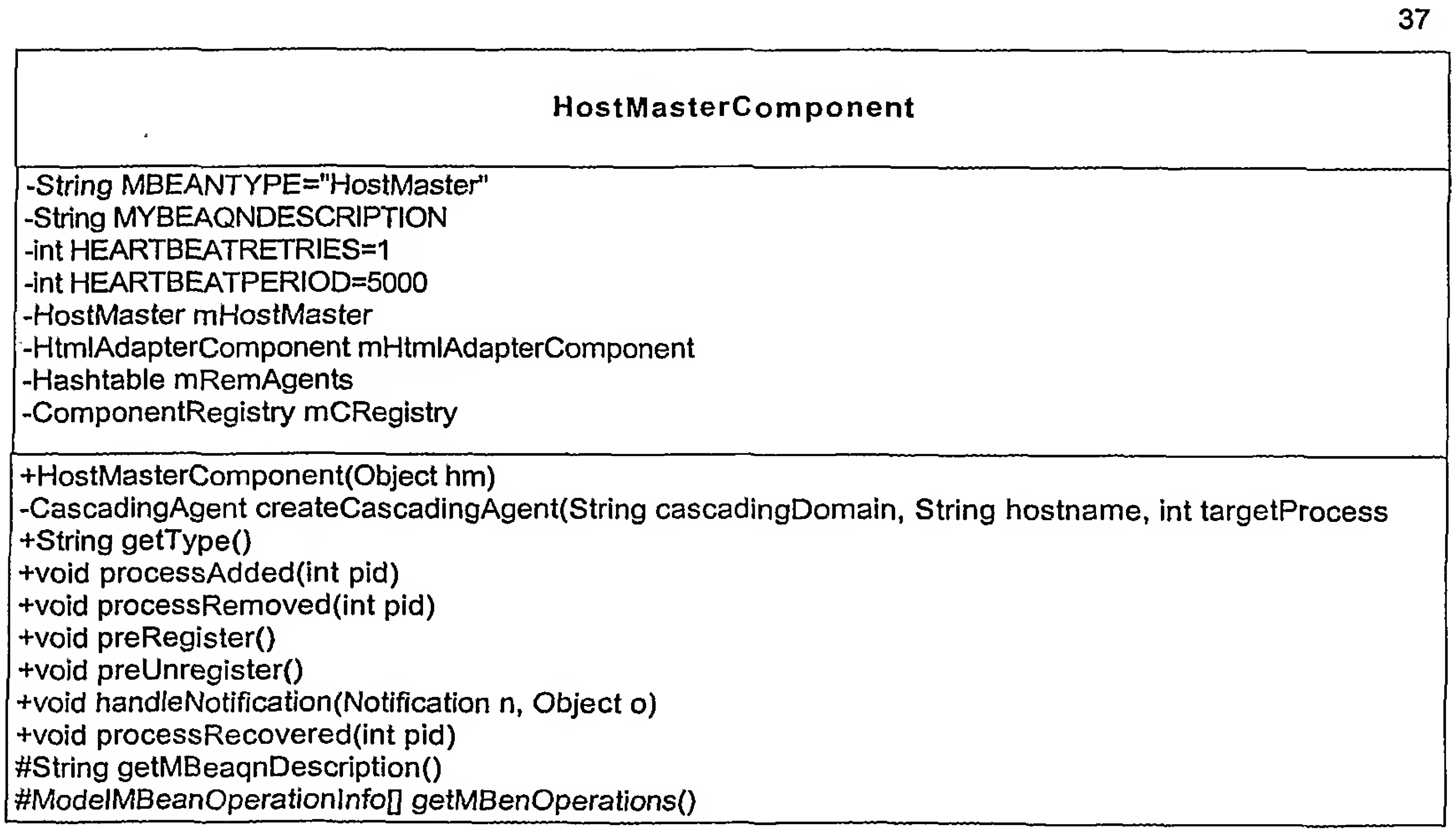
```
NodeManager
-Vector mynodes
+void NodeManager()
+Node createNode(NodeType type)
-void destroyNode(Node n)
-void startNode(Node n)
-void stopNode(Node n)
+void destroyNode(NodeType nt)
+void startNode(NodeType nt)
+void stopNode(NodeType nt)
+Node getNode(NodeType type)
+Integer activeNodeCount()
+void recoverNodes()
```

FIG 4E



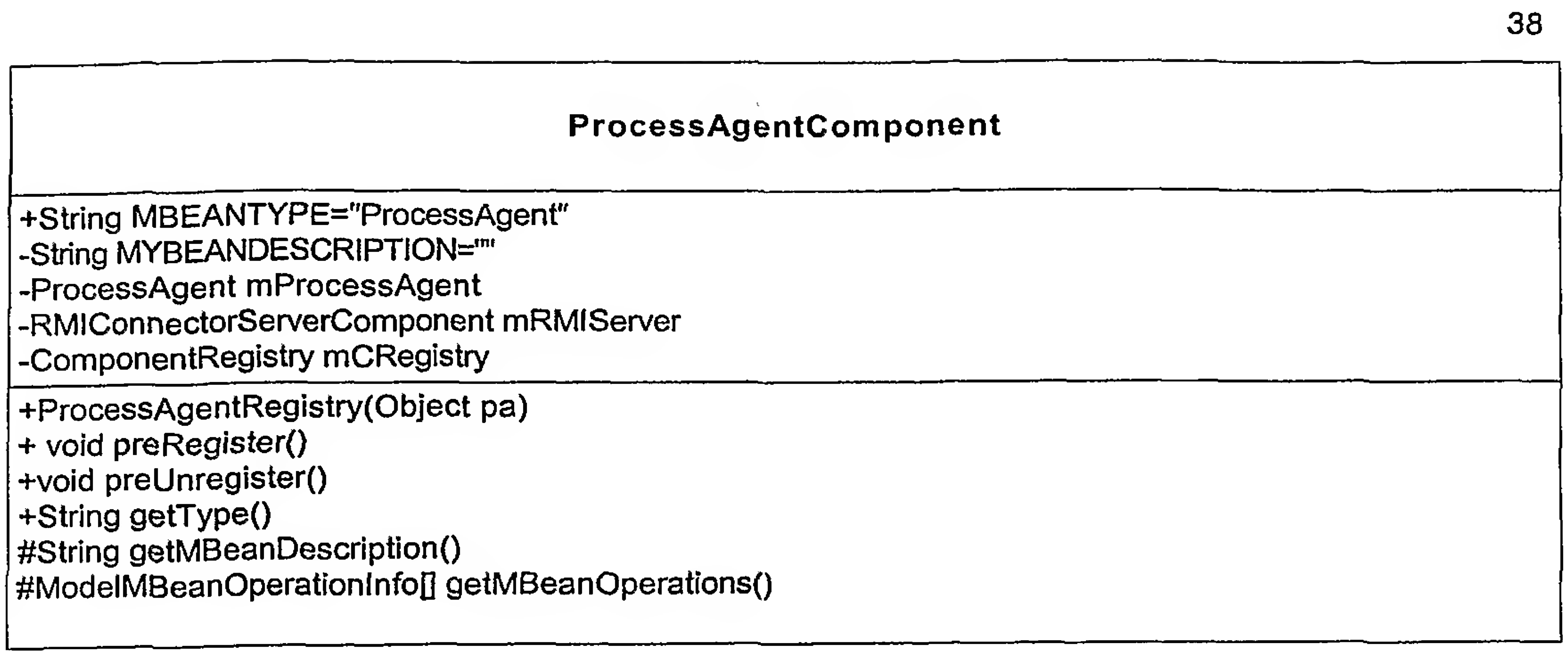
```
ComponentAware
+Class getComponentClass()
```

FIG 4F



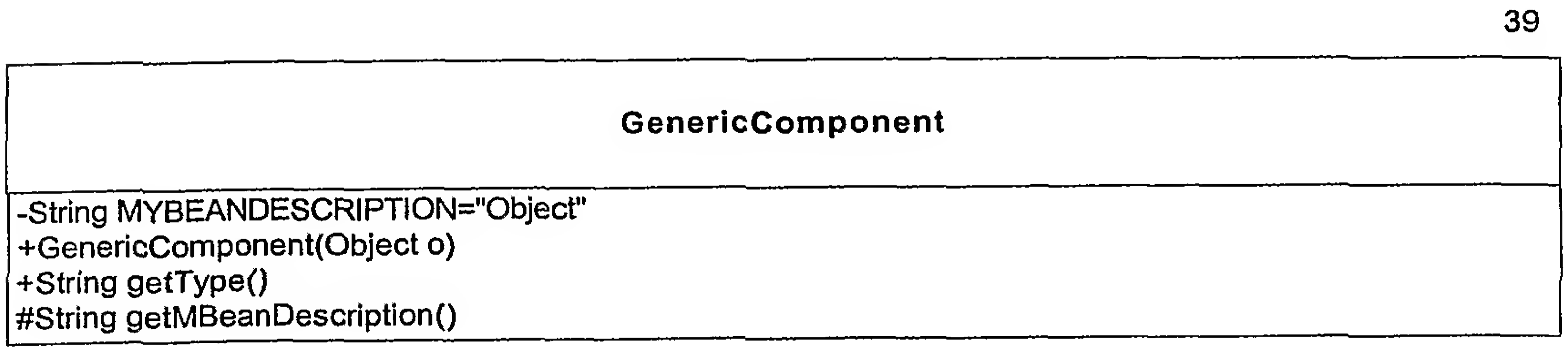
```
HostMasterComponent
-String MBEANTYPE="HostMaster"
-String MYBEAQNDESCRIPTION
-int HEARTBEATRETRIES=1
-int HEARTBEATPERIOD=5000
-HostMaster mHostMaster
-HtmlAdapterComponent mHtmlAdapterComponent
-Hashtable mRemAgents
-ComponentRegistry mCRegistry
+HostMasterComponent(Object hm)
-CascadingAgent createCascadingAgent(String cascadingDomain, String hostname, int targetProcess
+String getType()
+void processAdded(int pid)
+void processRemoved(int pid)
+void preRegister()
+void preUnregister()
+void handleNotification(Notification n, Object o)
+void processRecovered(int pid)
#String getMBeaqnDescription()
#ModelMBeanOperationInfo[] getMBenOperations()
```

FIG 4G



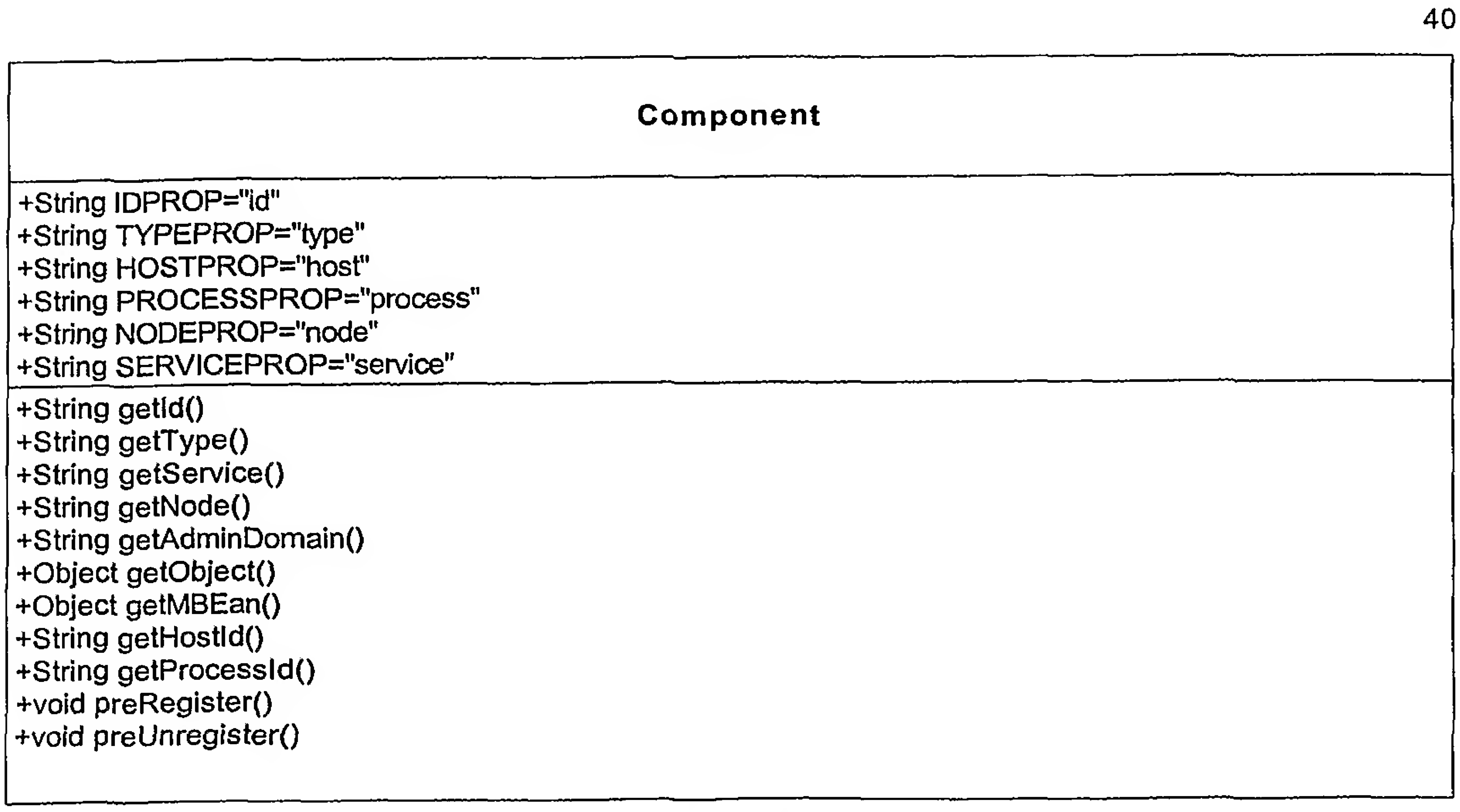
```
ProcessAgentComponent
+String MBEANTYPE="ProcessAgent"
-String MYBEANDESCRIPTION=""
-ProcessAgent mProcessAgent
-RMIConnectorServerComponent mRMIServer
-ComponentRegistry mCRegistry
+ProcessAgentRegistry(Object pa)
+ void preRegister()
+void preUnregister()
+String getType()
#String getMBeanDescription()
#ModelMBeanOperationInfo[] getMBeanOperations()
```

FIG 4H



```
GenericComponent
-String MYBEANDESCRIPTION="Object"
+GenericComponent(Object o)
+String getType()
#String getMBeanDescription()
```

FIG 4I



```
Component
+String IDPROP="id"
+String TYPEPROP="type"
+String HOSTPROP="host"
+String PROCESSPROP="process"
+String NODEPROP="node"
+String SERVICEPROP="service"
+String getId()
+String getType()
+String getService()
+String getNode()
+String getAdminDomain()
+Object getObject()
+Object getMBEan()
+String getHostId()
+String getProcessId()
+void preRegister()
+void preUnregister()
```

FIG 4J

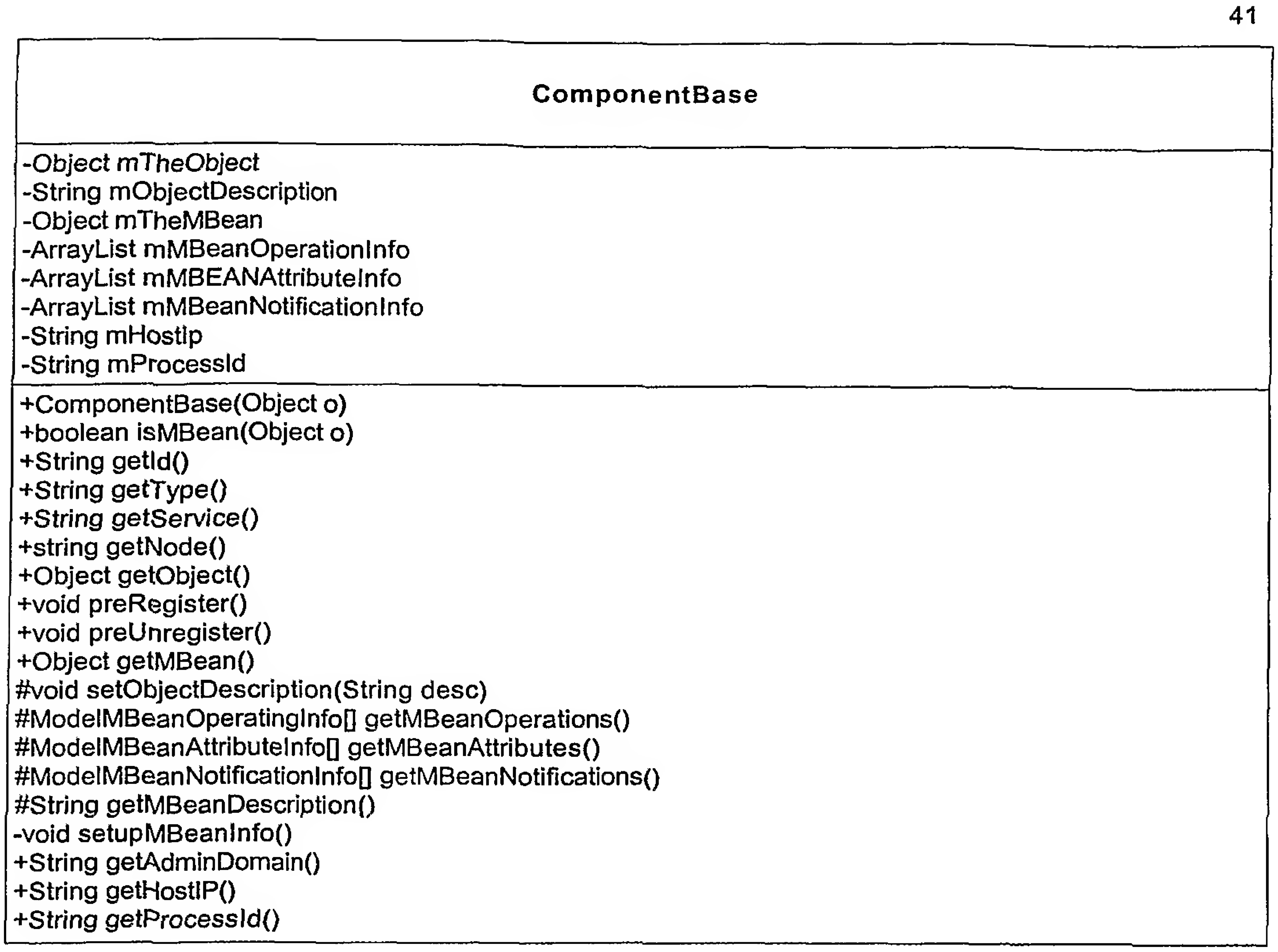

41
ComponentBase
-Object mTheObject
-String mObjectDescription
-Object mTheMBean
-ArrayList mMBeanOperationInfo
-ArrayList mMBEANAttributeInfo
-ArrayList mMBeanNotificationInfo
-String mHostIp
-String mProcessId
+ComponentBase(Object o)
+boolean isMBean(Object o)
+String getId()
+String getType()
+String getService()
+string getNode()
+Object getObject()
+void preRegister()
+void preUnregister()
+Object getMBean()
#void setObjectDescription(String desc)
#ModelMBeanOperatingInfo[] getMBeanOperations()
#ModelMBeanAttributeInfo[] getMBeanAttributes()
#ModelMBeanNotificationInfo[] getMBeanNotifications()
#String getMBeanDescription()
-void setupMBeanInfo()
+String getAdminDomain()
+String getHostIP()
+String getProcessId()

FIG 4K

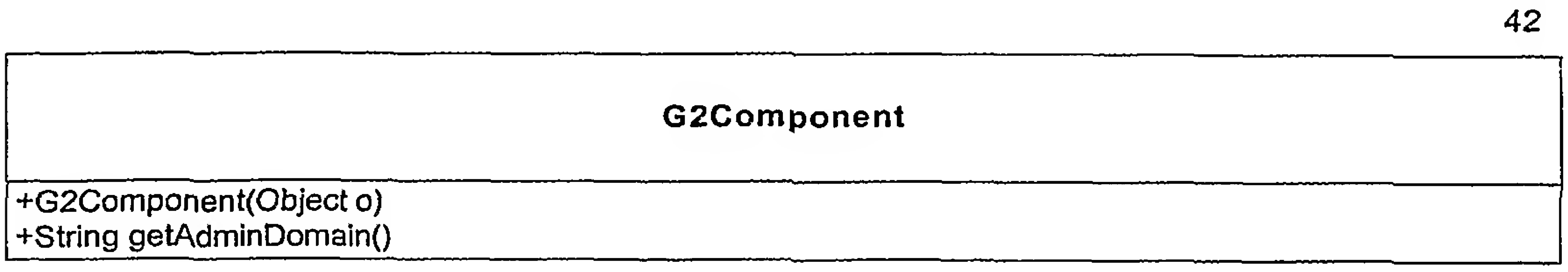


FIG 4L

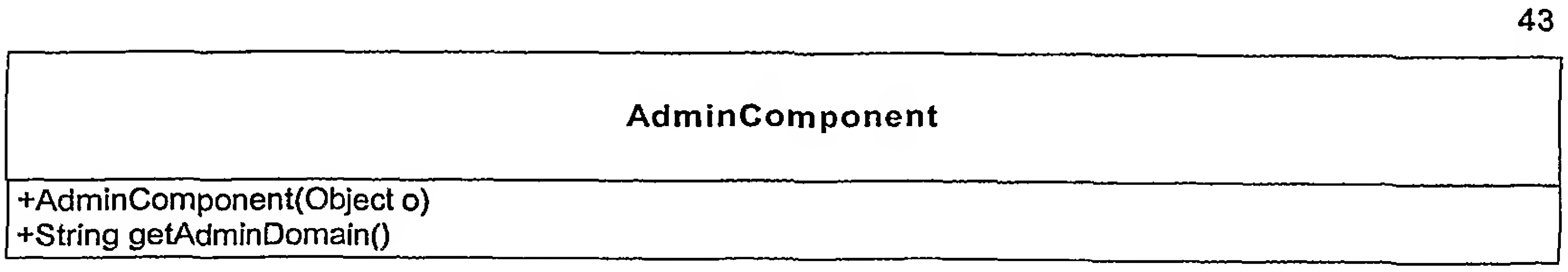


FIG 4M

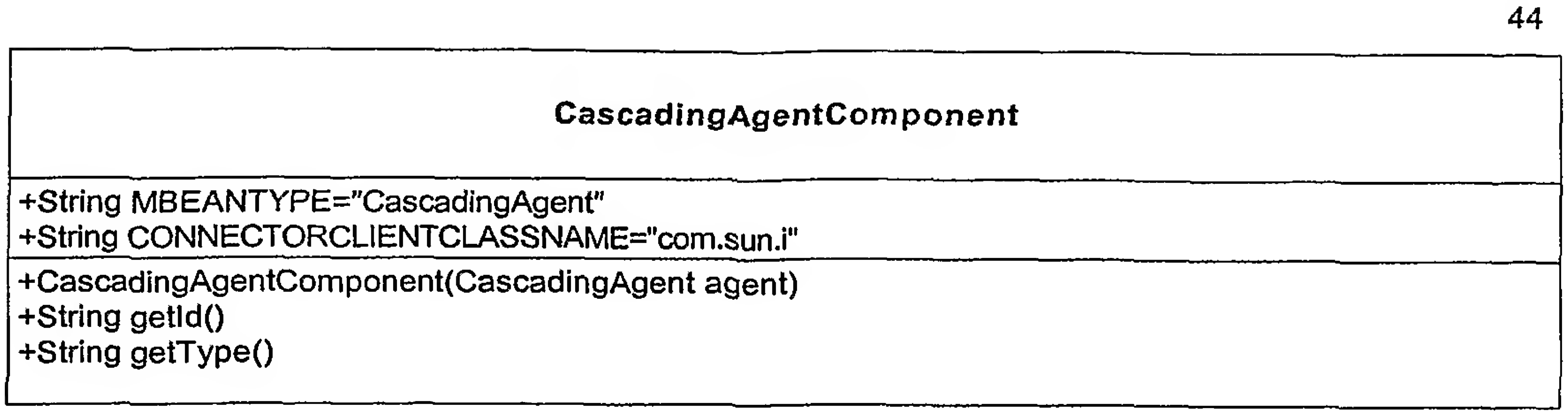

44
CascadingAgentComponent
+String MBEANTYPE="CascadingAgent"
+String CONNECTORCLIENTCLASSNAME="com.sun.i"
+CascadingAgentComponent(CascadingAgent agent)
+String getId()
+String getType()

FIG 4N

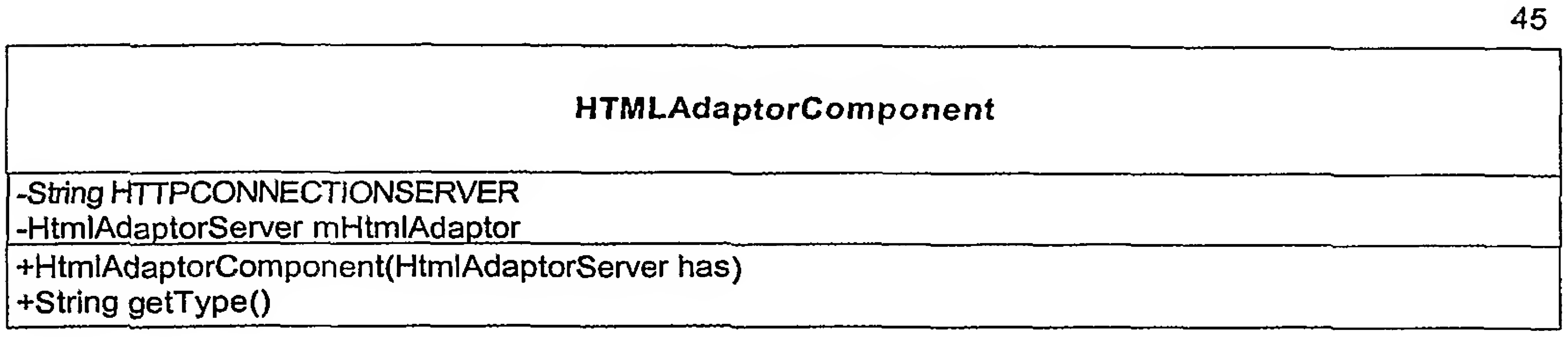

45
HTMLAdaptorComponent
-String HTTPCONNECTIONSERVER
-HtmlAdaptorServer mHtmlAdaptor
+HtmlAdaptorComponent(HtmlAdaptorServer has)
+String getType()

FIG 4O

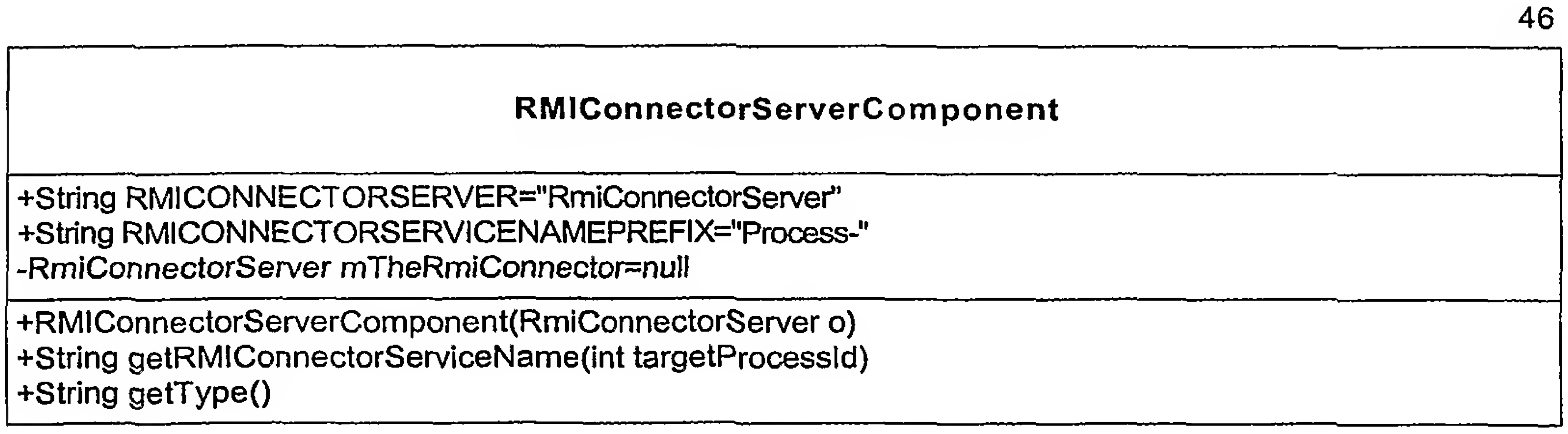

46
RMIConnectorServerComponent
+String RMICONNECTORSERVER="RmiConnectorServer"
+String RMICONNECTORSERVICENAMEPREFIX="Process-"
-RmiConnectorServer mTheRmiConnector=null
+RMIConnectorServerComponent(RmiConnectorServer o)
+String getRMIConnectorServiceName(int targetProcessId)
+String getType()

FIG 4P

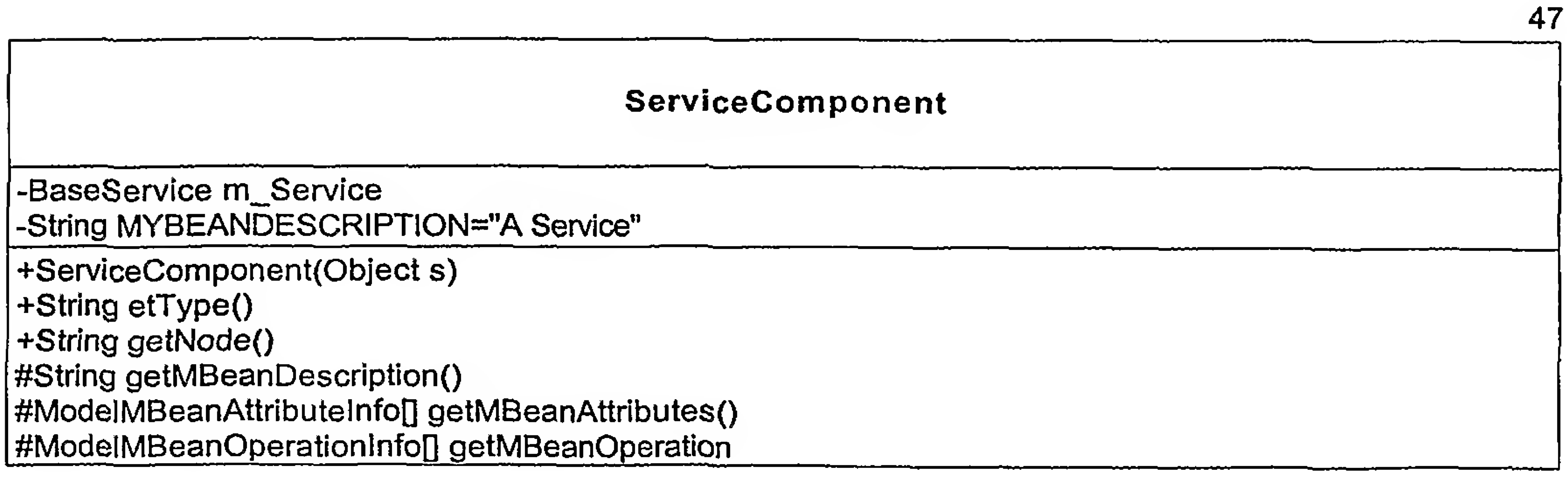
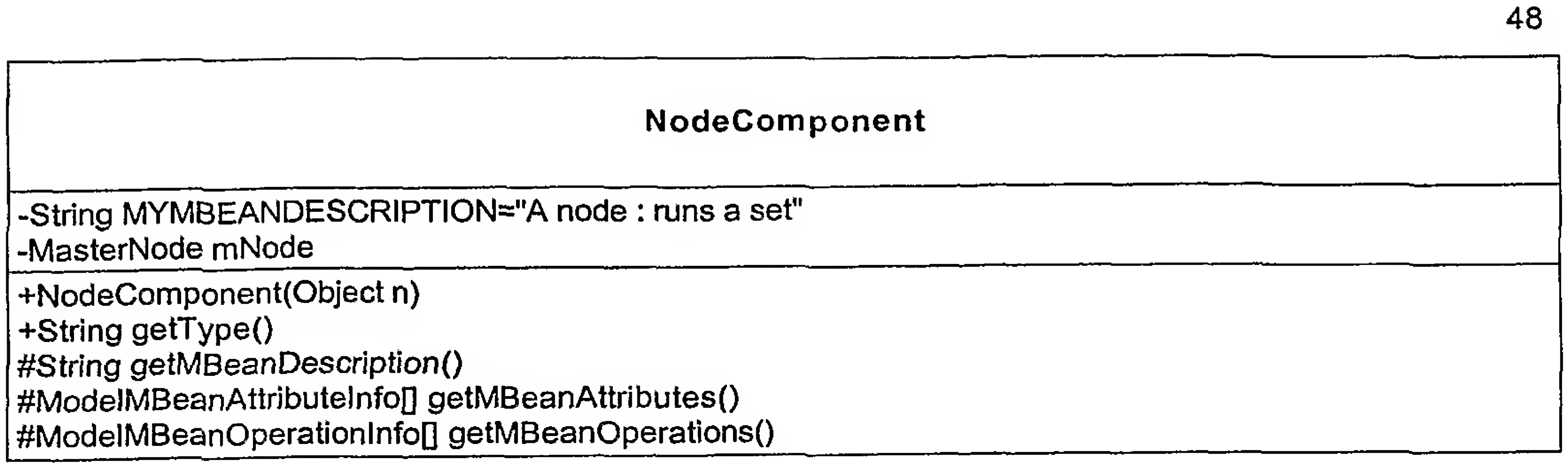
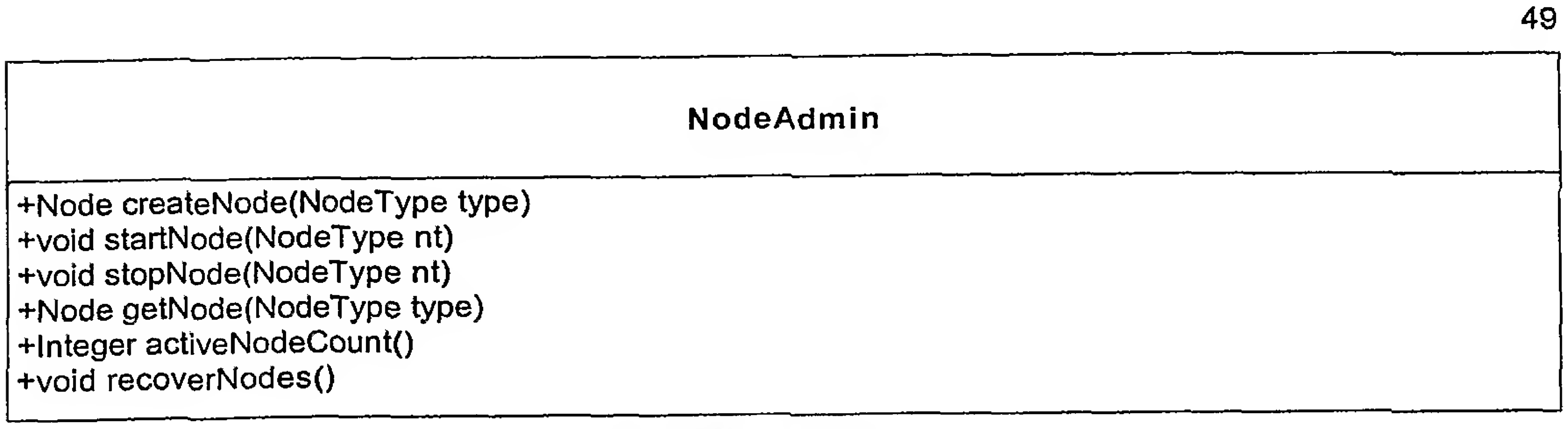

47
ServiceComponent
-BaseService m_Service
-String MYBEANDESCRIPTION="A Service"
+ServiceComponent(Object s)
+String etType()
+String getNode()
#String getMBeanDescription()
#ModelMBeanAttributeInfo[] getMBeanAttributes()
#ModelMBeanOperationInfo[] getMBeanOperation

FIG 4Q



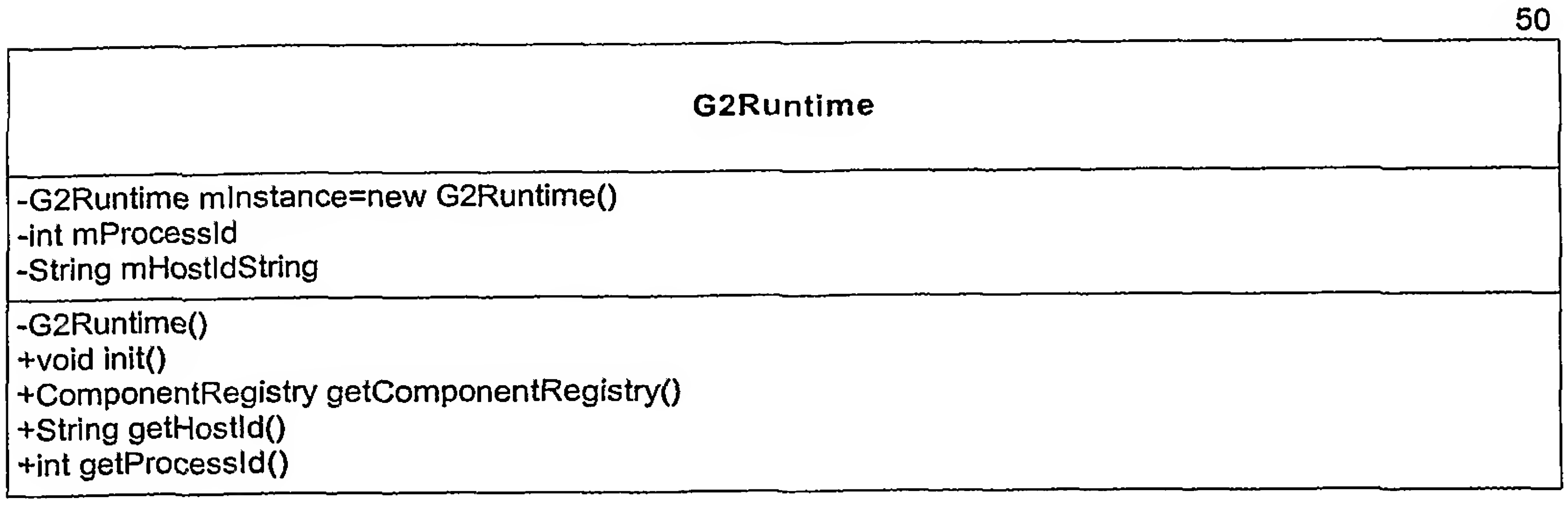
```
NodeComponent
-String MYMBEANDESCRIPTION="A node : runs a set"
-MasterNode mNode
+NodeComponent(Object n)
+String getType()
#String getMBeanDescription()
#ModelMBeanAttributeInfo[] getMBeanAttributes()
#ModelMBeanOperationInfo[] getMBeanOperations()
```

FIG 4R



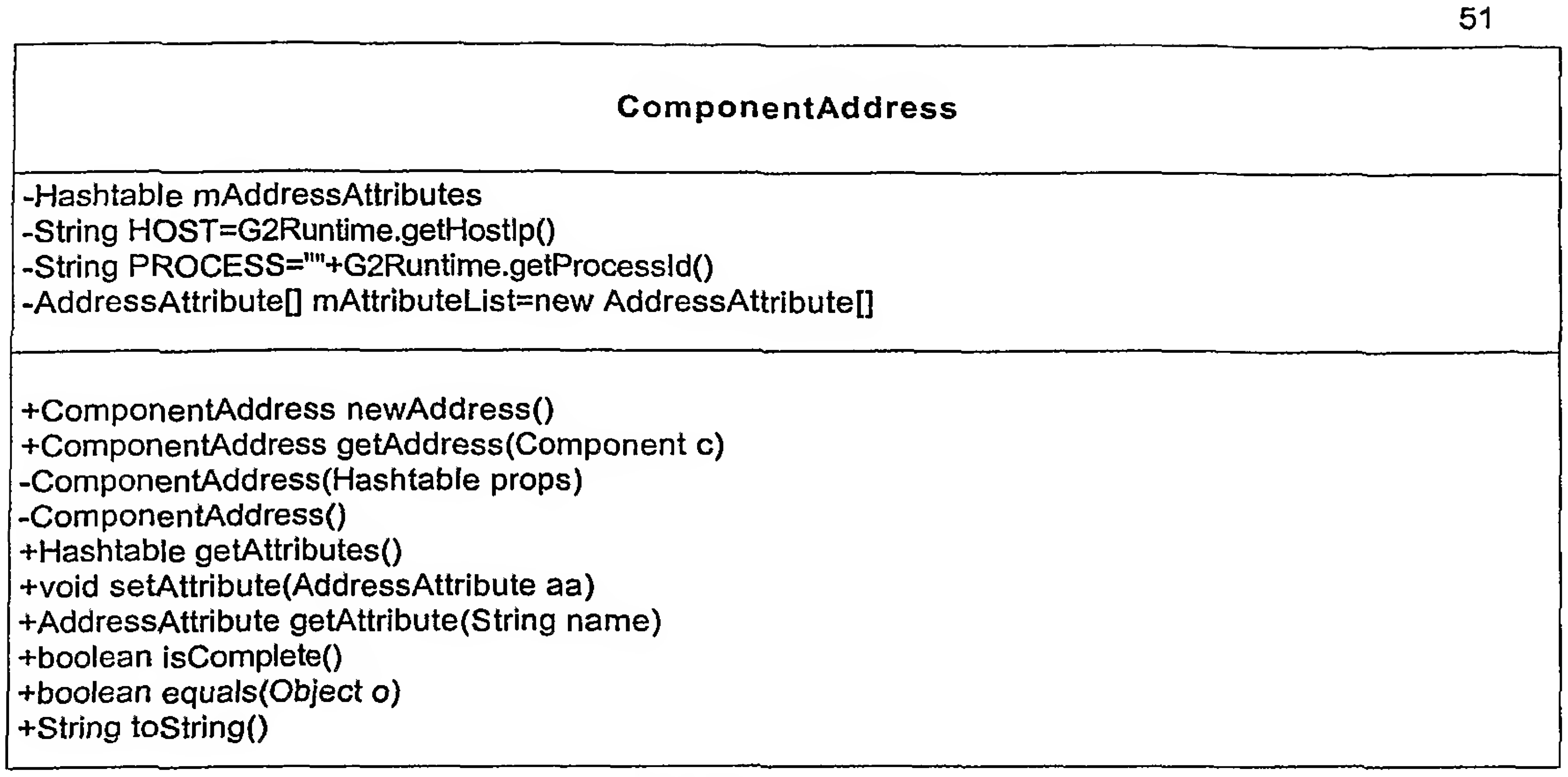
```
NodeAdmin
+Node createNode(NodeType type)
+void startNode(NodeType nt)
+void stopNode(NodeType nt)
+Node getNode(NodeType type)
+Integer activeNodeCount()
+void recoverNodes()
```

FIG 4S



```
G2Runtime
-G2Runtime mInstance=new G2Runtime()
-int mProcessId
-String mHostIdString
-G2Runtime()
+void init()
+ComponentRegistry getComponentRegistry()
+String getHostId()
+int getProcessId()
```

FIG 4T

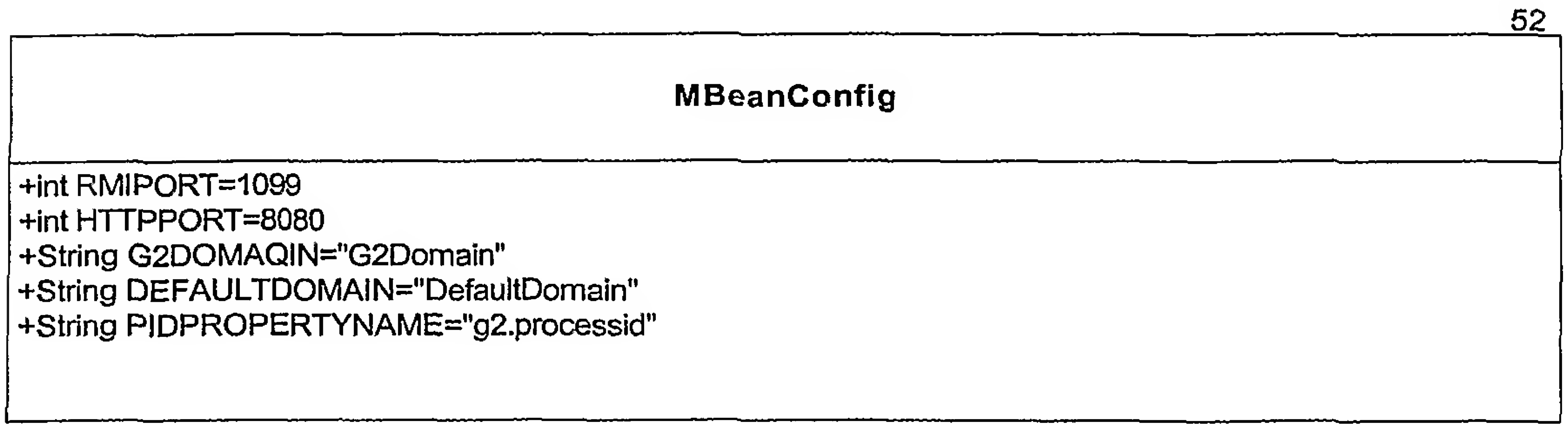


ComponentAddress

```
-Hashtable mAddressAttributes
-String HOST=G2Runtime.getHostIp()
-String PROCESS=""+G2Runtime.getProcessId()
-AddressAttribute[] mAttributeList=new AddressAttribute[]

+ComponentAddress newAddress()
+ComponentAddress getAddress(Component c)
-ComponentAddress(Hashtable props)
-ComponentAddress()
+Hashtable getAttributes()
+void setAttribute(AddressAttribute aa)
+AddressAttribute getAttribute(String name)
+boolean isComplete()
+boolean equals(Object o)
+String toString()
```

FIG 4U



MBeanConfig

```
+int RMIPORT=1099
+int HTTPPORT=8080
+String G2DOMAQIN="G2Domain"
+String DEFAULTDOMAIN="DefaultDomain"
+String PIDPROPERTYNAME="g2.processid"
```

FIG 4V

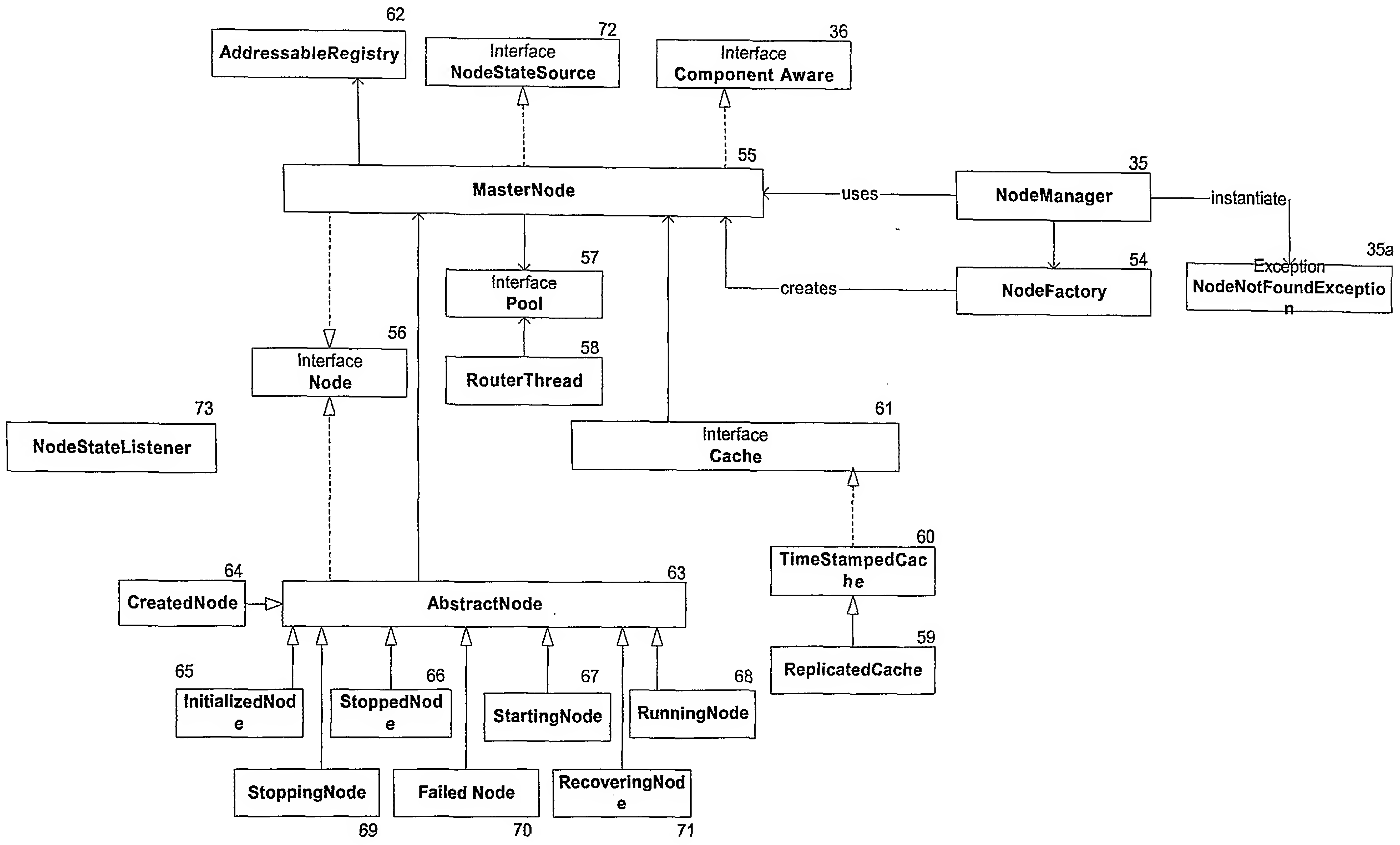

62
AddressableRegistry
72
Interface
NodeStateSource
36
Interface
Component Aware
55
MasterNode
uses
35
NodeManager
instantiate
35a
Exception
NodeNotFoundExceptio
n
54
NodeFactory
creates
57
Interface
Pool
58
RouterThread
56
Interface
Node
73
NodeStateListener
61
Interface
Cache
60
TimeStampedCac
he
59
ReplicatedCache
64
CreatedNode
63
AbstractNode
65
InitializedNod
e
66
StoppedNod
e
67
StartingNode
68
RunningNode
StoppingNode
69
Failed Node
70
RecoveringNod
e
71

FIG 5

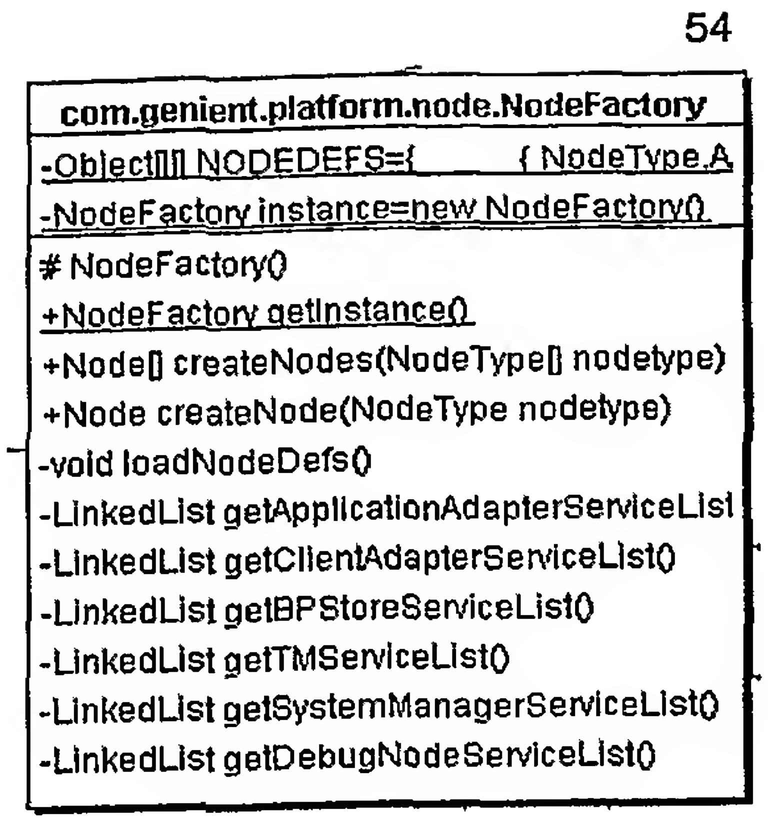

54
com.genient.platform.node.NodeFactory
-Object[][] NODEDEFS={ { NodeType.A
-NodeFactory instance=new NodeFactory()
# NodeFactory()
+NodeFactory getInstance()
+Node[] createNodes(NodeType[] nodetype)
+Node createNode(NodeType nodetype)
-void loadNodeDefs()
-LinkedList getApplicationAdapterServiceList
-LinkedList getClientAdapterServiceList()
-LinkedList getBPStoreServiceList()
-LinkedList getTMServiceList()
-LinkedList getSystemManagerServiceList()
-LinkedList getDebugNodeServiceList()

FIG 5A

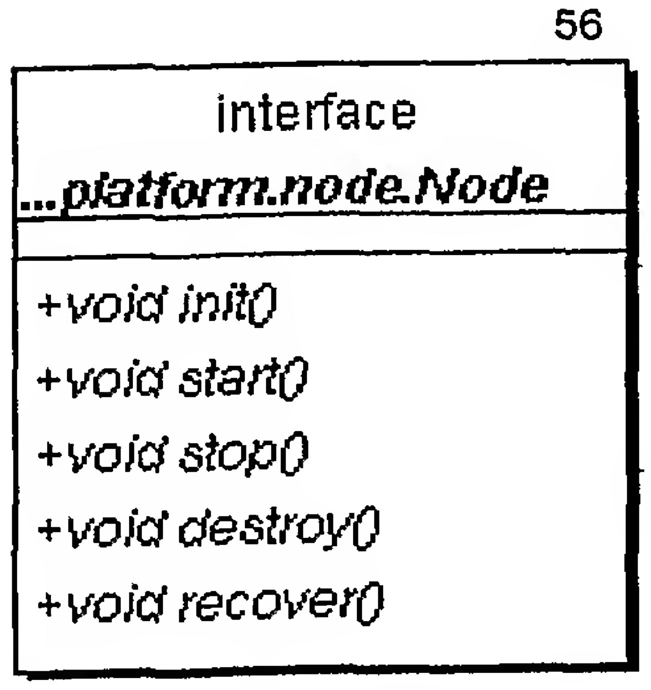


FIG 5C

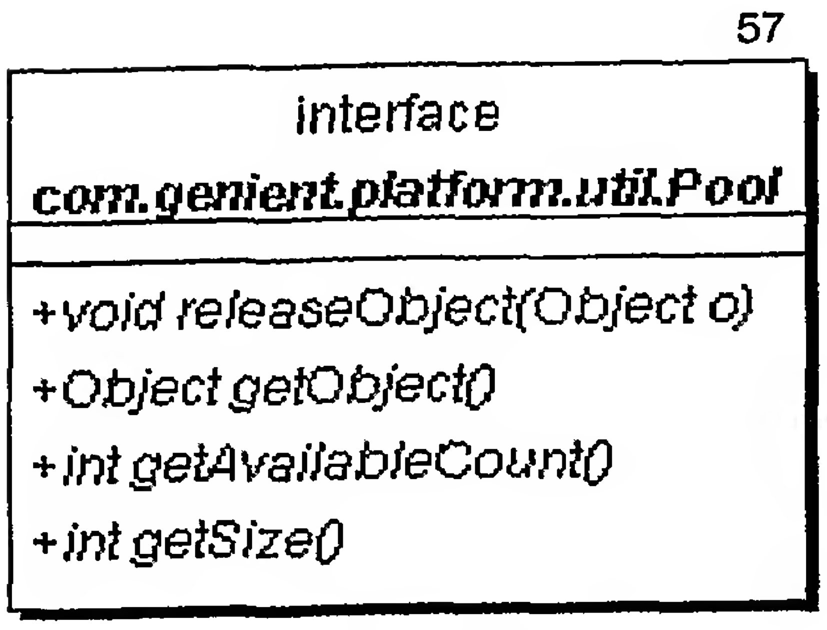


FIG 5D

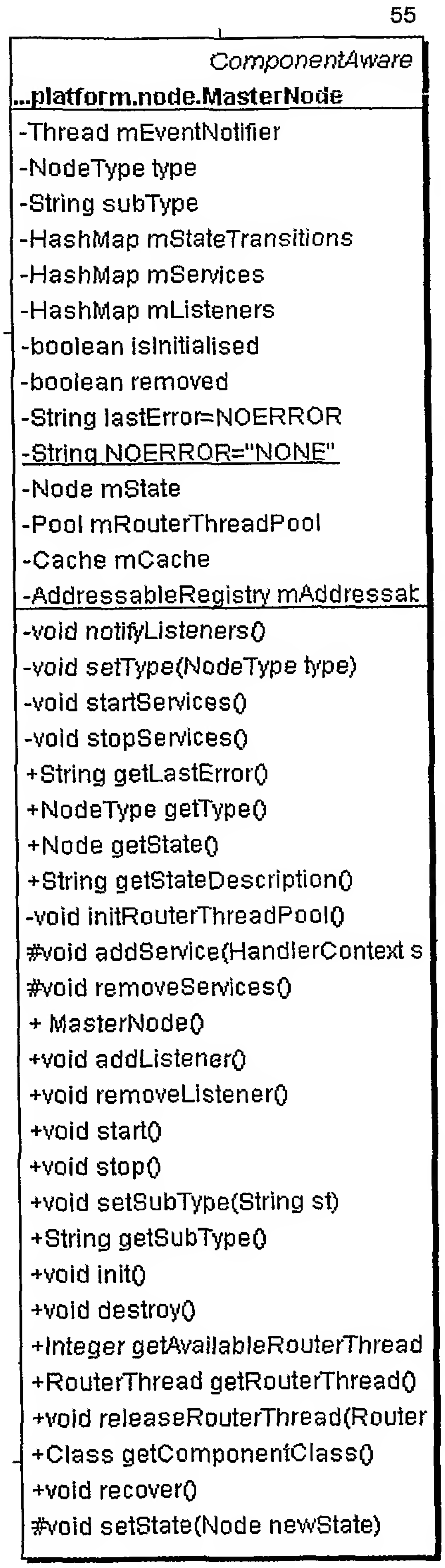


FIG 5B

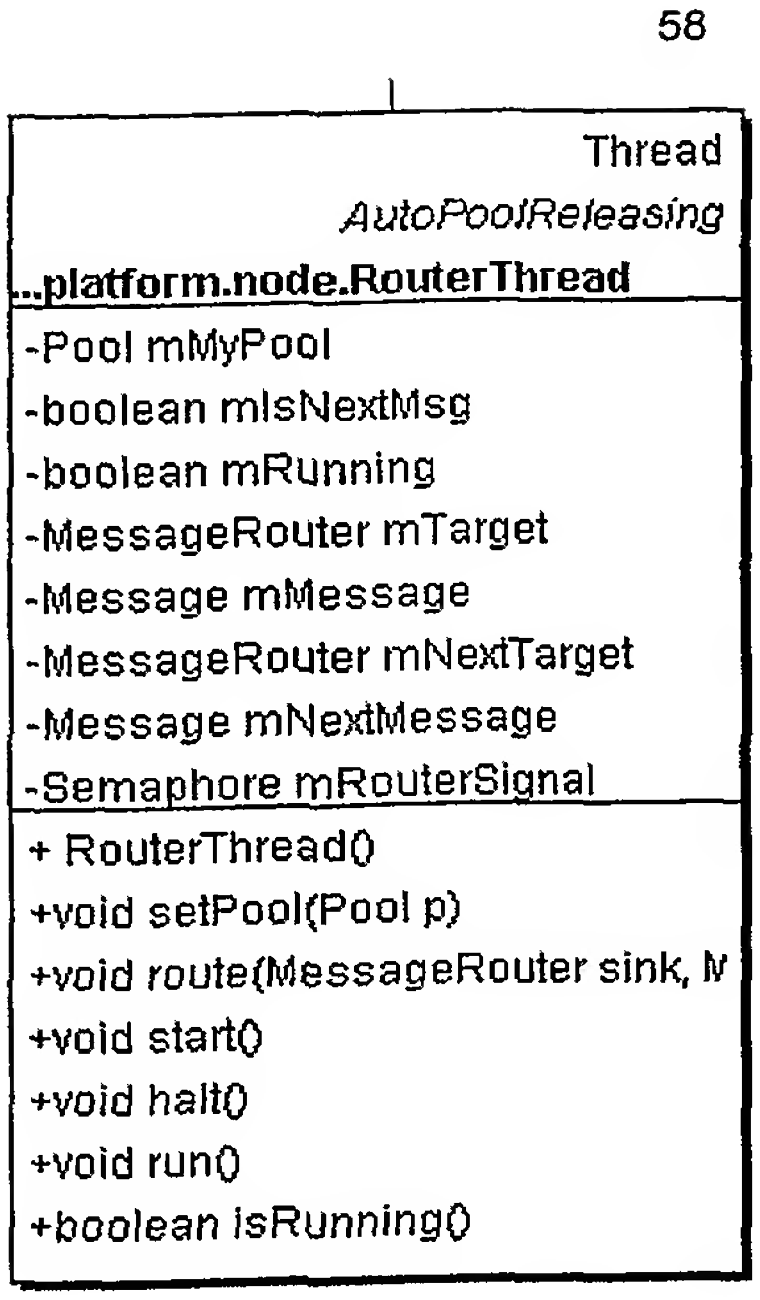


FIG 5E

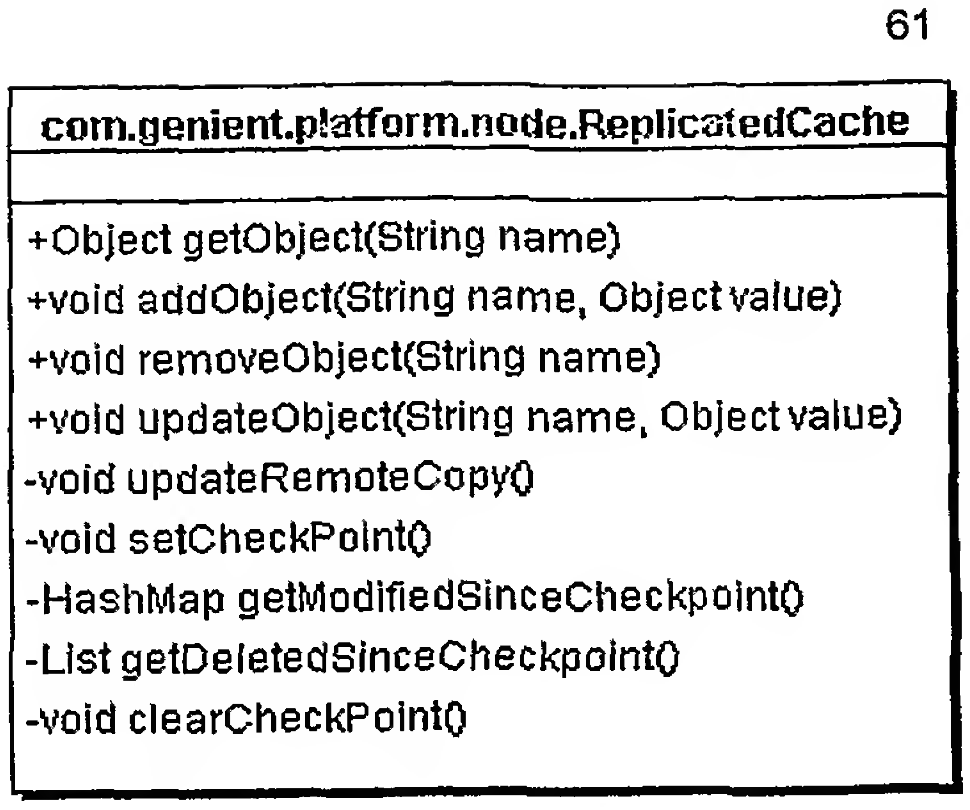

61
com.genient.platform.node.ReplicatedCache
+Object getObject(String name)
+void addObject(String name, Object value)
+void removeObject(String name)
+void updateObject(String name, Object value)
-void updateRemoteCopy()
-void setCheckPoint()
-HashMap getModifiedSinceCheckpoint()
-List getDeletedSinceCheckpoint()
-void clearCheckPoint()

FIG 5F

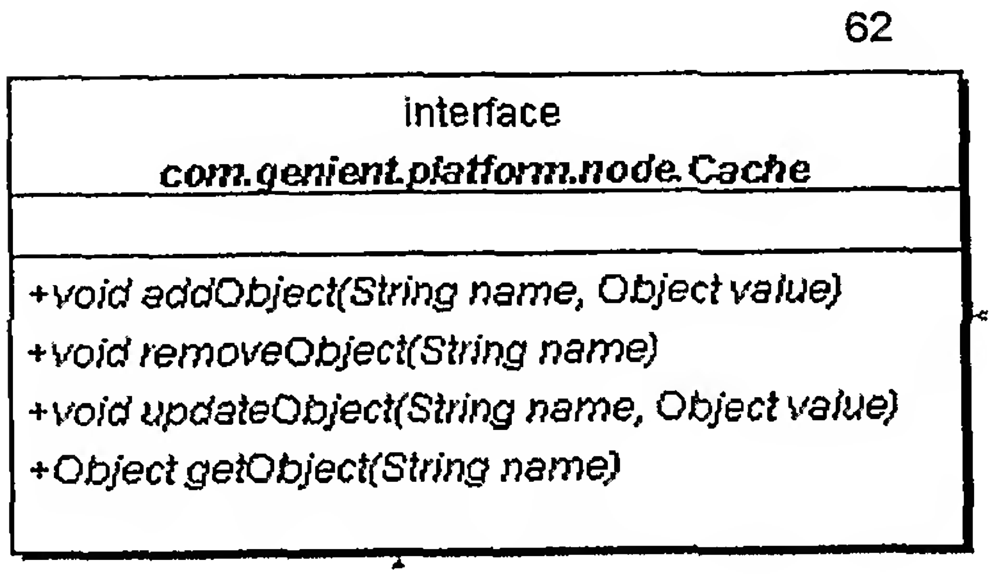

62
interface
com.genient.platform.node.Cache
+void addObject(String name, Object value)
+void removeObject(String name)
+void updateObject(String name, Object value)
+Object getObject(String name)

FIG 5H

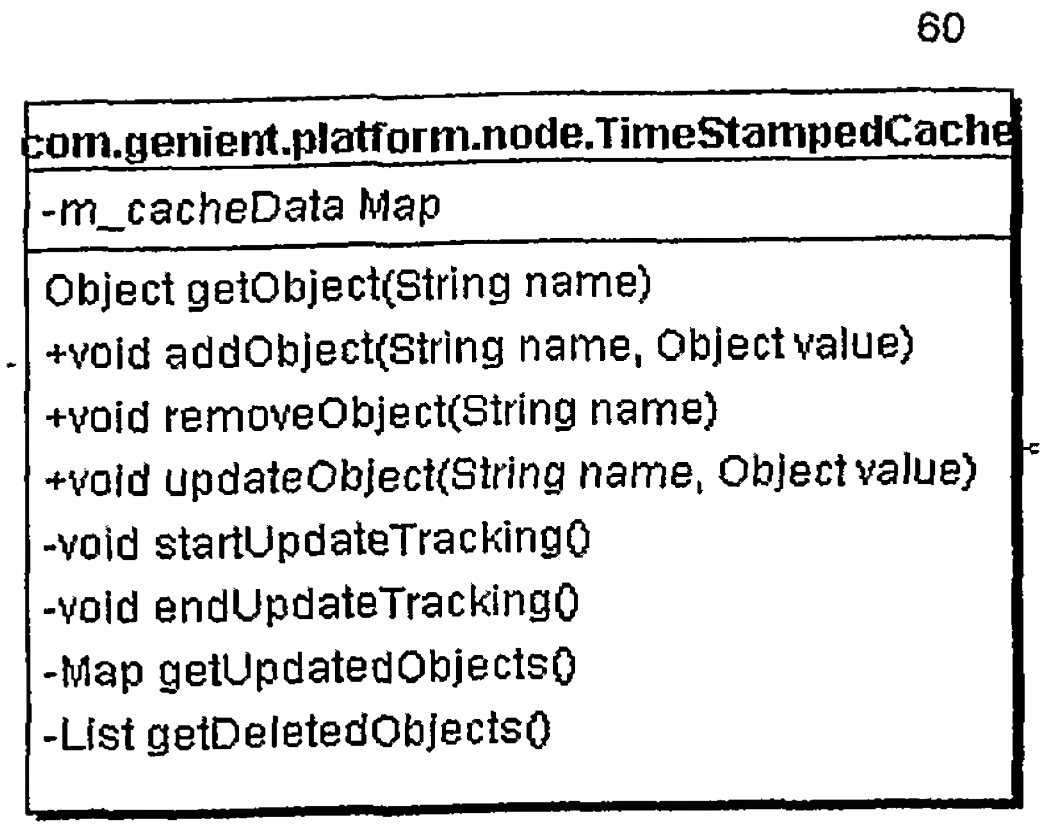

60
com.genient.platform.node.TimeStampedCache
-m_cacheData Map
Object getObject(String name)
+void addObject(String name, Object value)
+void removeObject(String name)
+void updateObject(String name, Object value)
-void startUpdateTracking()
-void endUpdateTracking()
-Map getUpdatedObjects()
-List getDeletedObjects()

FIG 5G

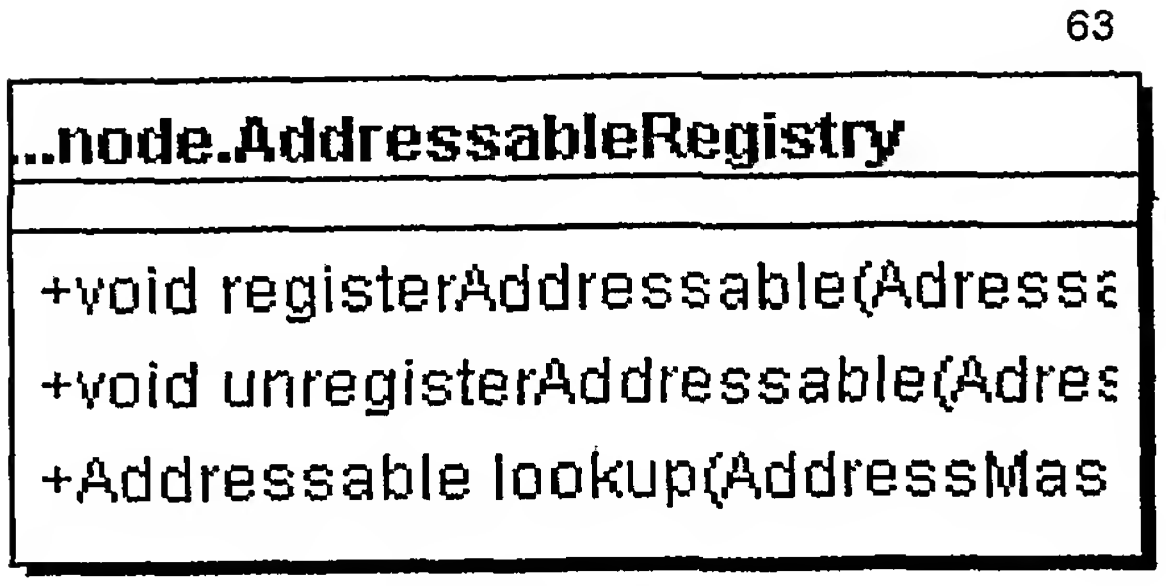

63
...node.AddressableRegistry
+void registerAddressable(Adressa
+void unregisterAddressable(Adres
+Addressable lookup(AddressMas

FIG 5I

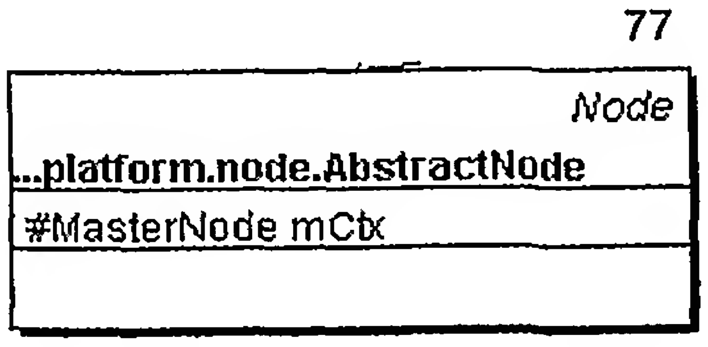


FIG 5J

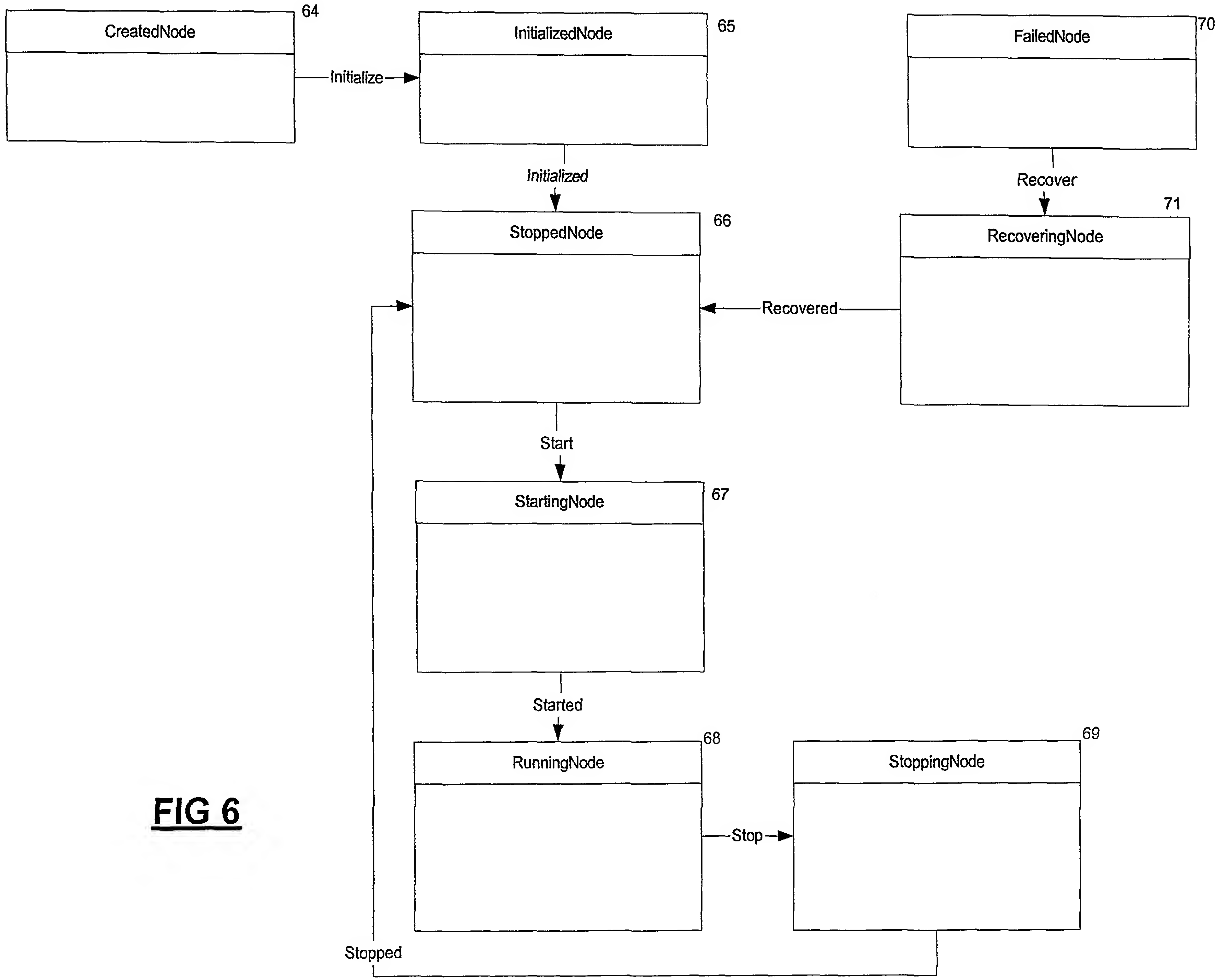

CreatedNode
64
Initialize
InitializedNode
65
Initialized
FailedNode
70
Recover
RecoveringNode
71
StoppedNode
66
Recovered
Start
StartingNode
67
Started
RunningNode
68
Stop
StoppingNode
69
Stopped

FIG 6

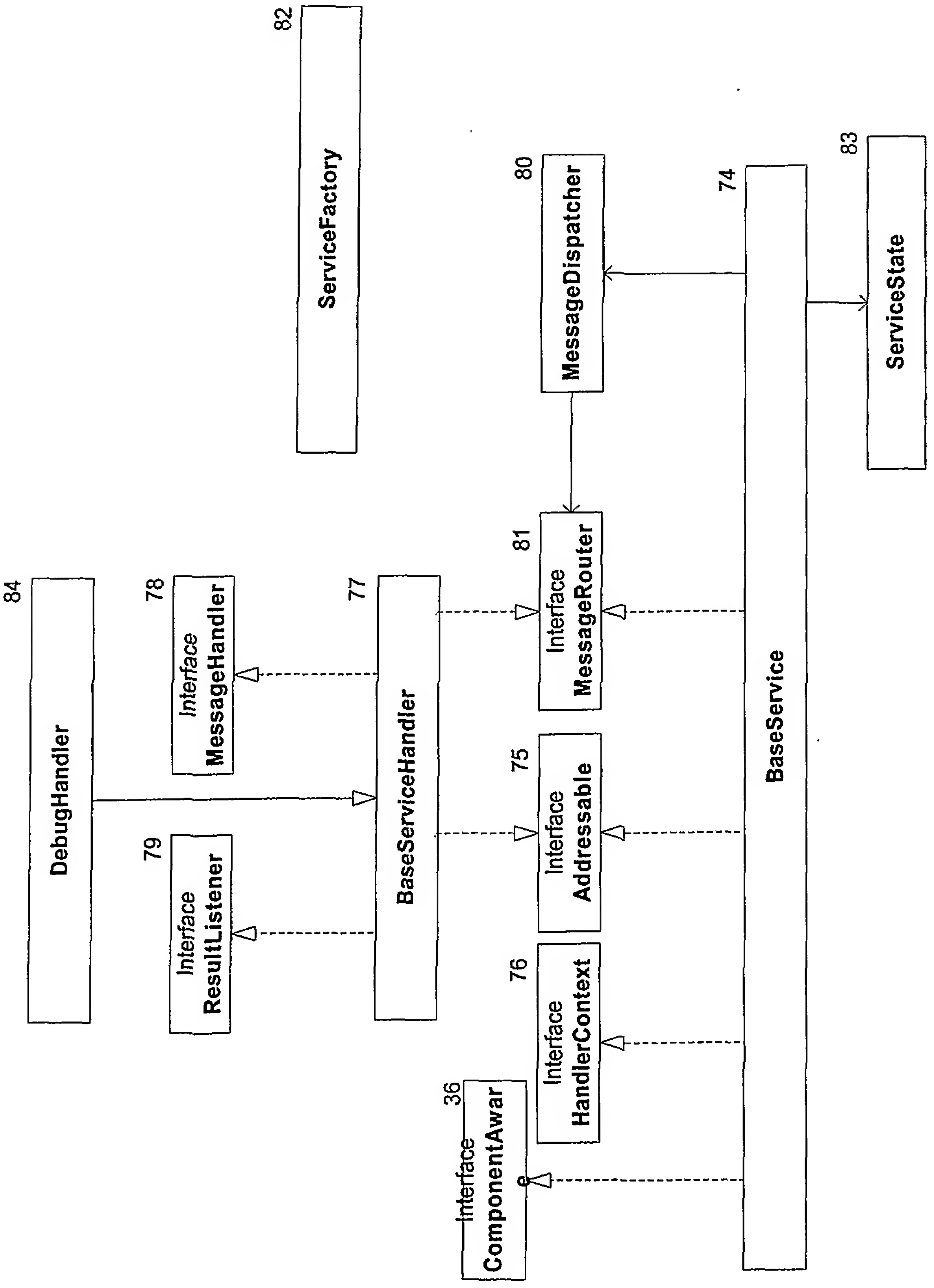

82
ServiceFactory
80
MessageDispatcher
74
BaseService
83
ServiceState
84
DebugHandler
78
Interface
MessageHandler
77
BaseServiceHandler
81
Interface
MessageRouter
75
Interface
Addressable
79
Interface
ResultListener
76
Interface
HandlerContext
36
Interface
ComponentAwar

FIG 7

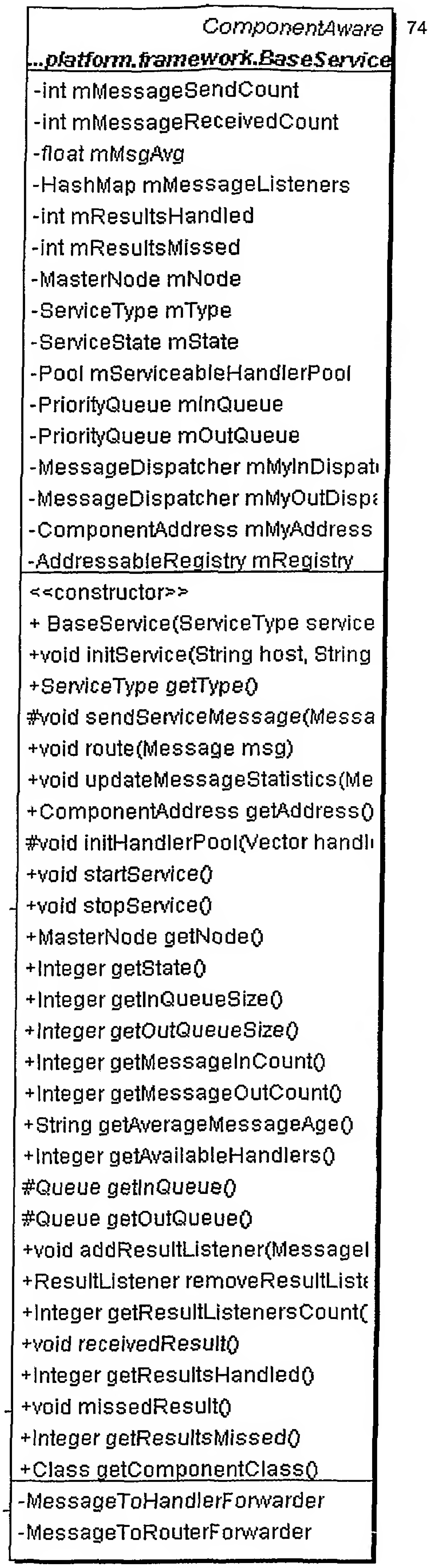

ComponentAware
74
...platform.framework.BaseService
-int mMessageSendCount
-int mMessageReceivedCount
-float mMsgAvg
-HashMap mMessageListeners
-int mResultsHandled
-int mResultsMissed
-MasterNode mNode
-ServiceType mType
-ServiceState mState
-Pool mServiceableHandlerPool
-PriorityQueue mInQueue
-PriorityQueue mOutQueue
-MessageDispatcher mMyInDispat
-MessageDispatcher mMyOutDispa
-ComponentAddress mMyAddress
-AddressableRegistry mRegistry
<<constructor>>
+ BaseService(ServiceType service
+void initService(String host, String
+ServiceType getType()
#void sendServiceMessage(Messa
+void route(Message msg)
+void updateMessageStatistics(Me
+ComponentAddress getAddress()
#void initHandlerPool(Vector handl
+void startService()
+void stopService()
+MasterNode getNode()
+Integer getState()
+Integer getInQueueSize()
+Integer getOutQueueSize()
+Integer getMessageInCount()
+Integer getMessageOutCount()
+String getAverageMessageAge()
+Integer getAvailableHandlers()
#Queue getInQueue()
#Queue getOutQueue()
+void addResultListener(MessageI
+ResultListener removeResultList
+Integer getResultListenersCount(
+void receivedResult()
+Integer getResultsHandled()
+void missedResult()
+Integer getResultsMissed()
+Class getComponentClass()
-MessageToHandlerForwarder
-MessageToRouterForwarder

FIG 7A

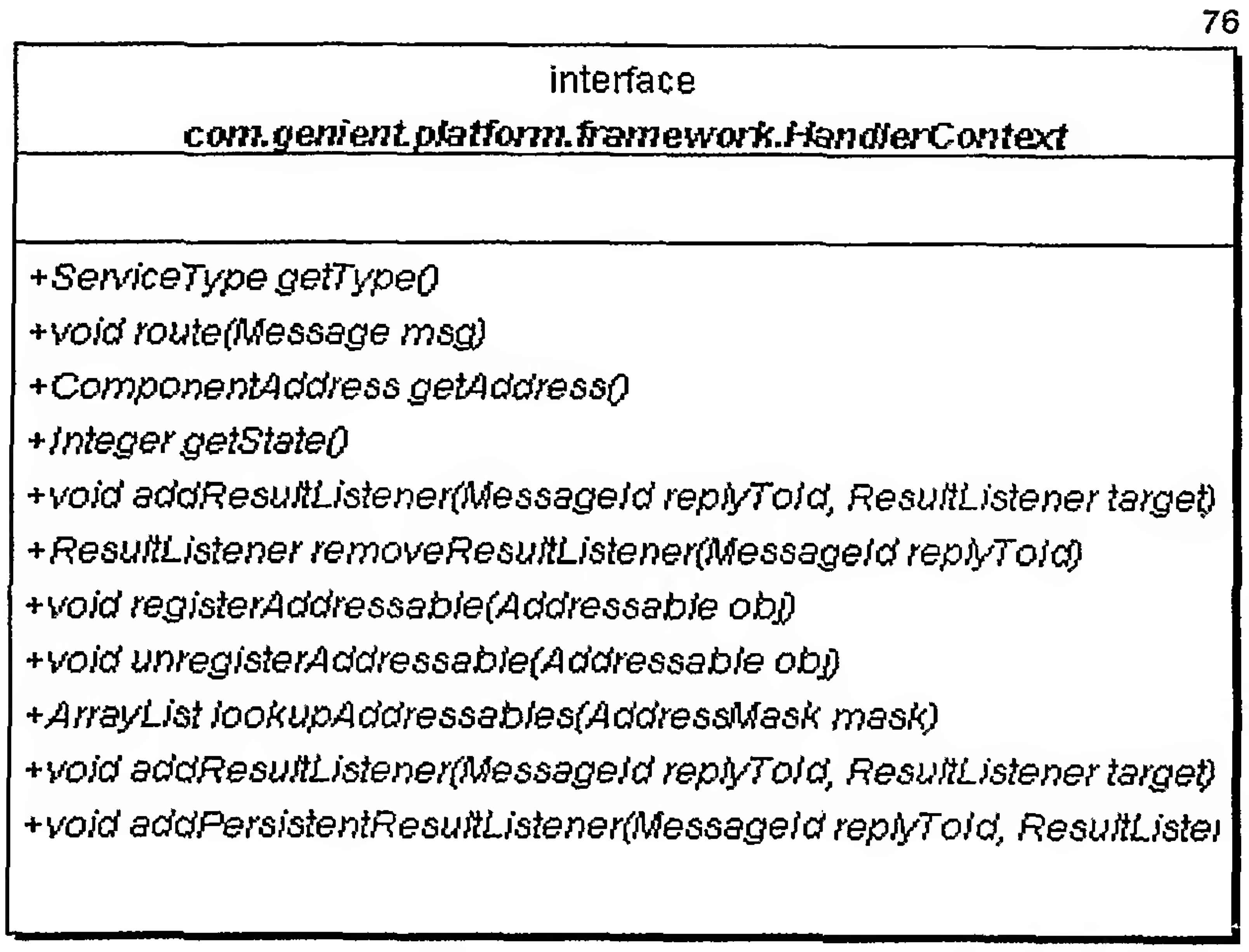

76
interface
com.genient.platform.framework.HandlerContext
+ServiceType getType()
+void route(Message msg)
+ComponentAddress getAddress()
+Integer getState()
+void addResultListener(MessageId replyToId, ResultListener target)
+ResultListener removeResultListener(MessageId replyToId)
+void registerAddressable(Addressable obj)
+void unregisterAddressable(Addressable obj)
+ArrayList lookupAddressables(AddressMask mask)
+void addResultListener(MessageId replyToId, ResultListener target)
+void addPersistentResultListener(MessageId replyToId, ResultListe

FIG 7B

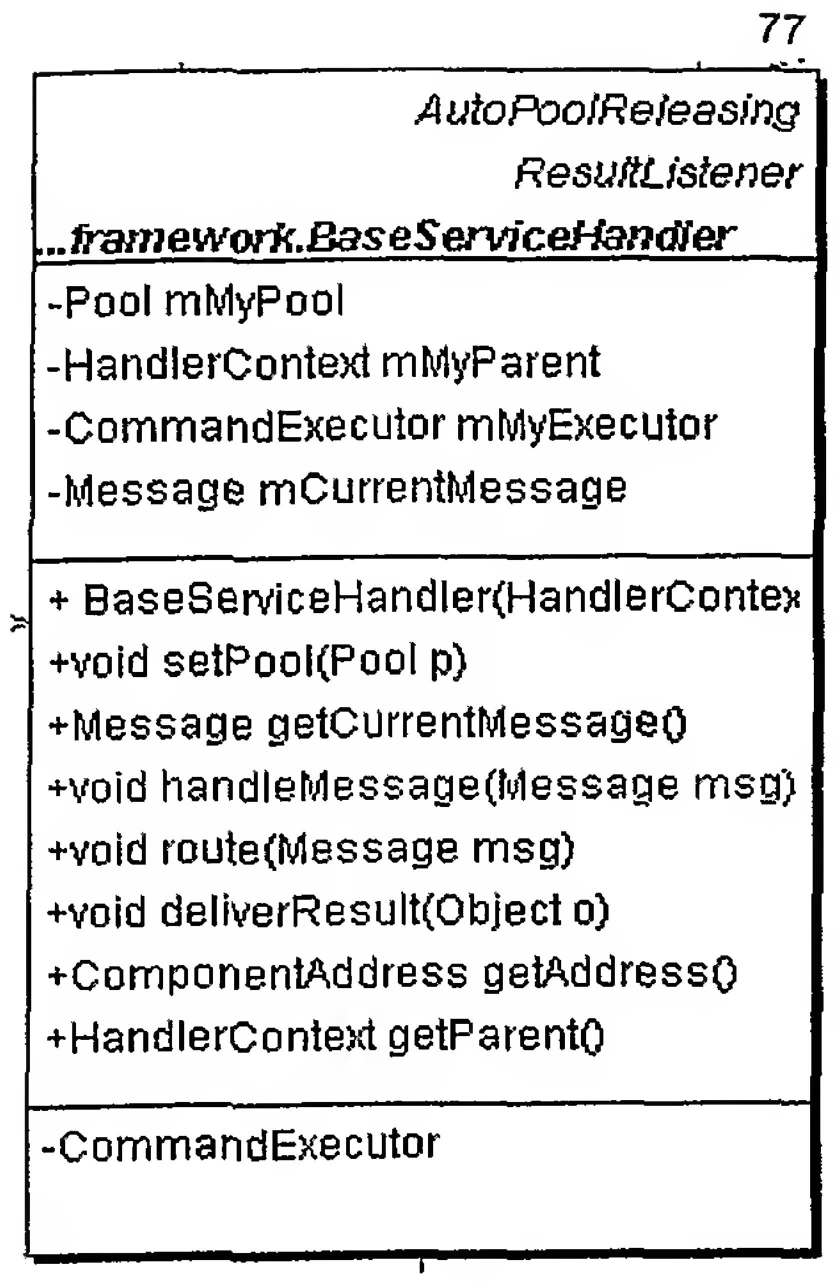

77
AutoPoolReleasing
ResultListener
...framework.BaseServiceHandler
-Pool mMyPool
-HandlerContext mMyParent
-CommandExecutor mMyExecutor
-Message mCurrentMessage
+ BaseServiceHandler(HandlerContex
+void setPool(Pool p)
+Message getCurrentMessage()
+void handleMessage(Message msg)
+void route(Message msg)
+void deliverResult(Object o)
+ComponentAddress getAddress()
+HandlerContext getParent()
-CommandExecutor

FIG 7C

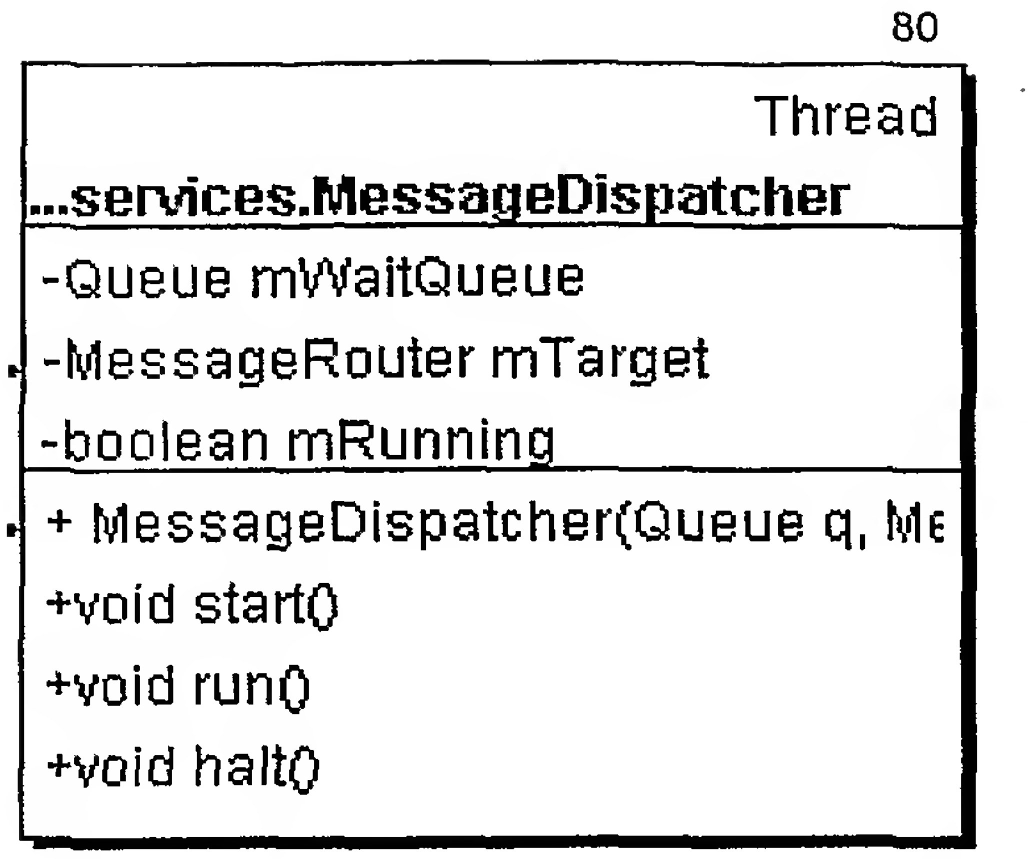


FIG 7D

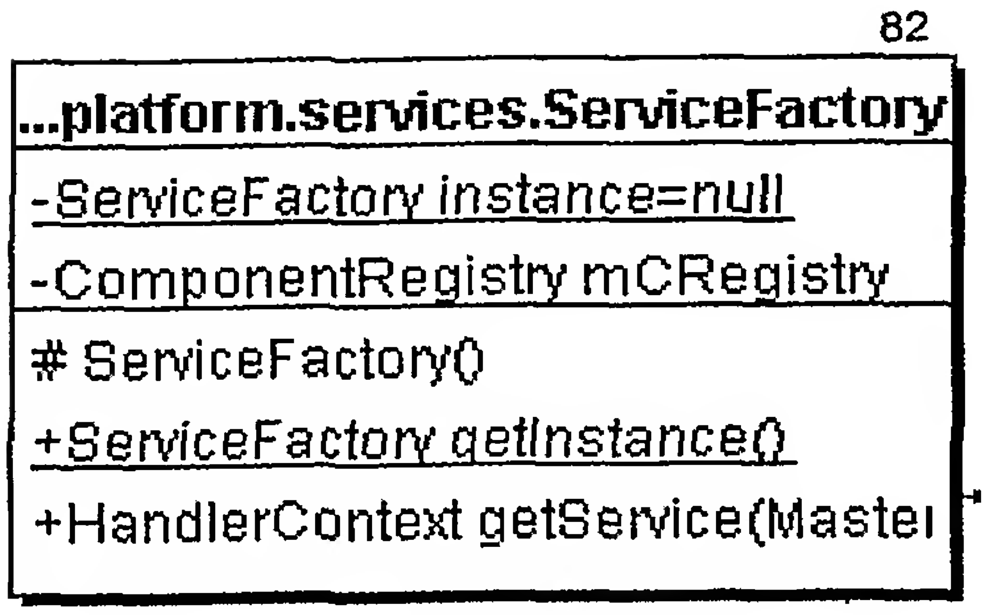

82
...platform.services.ServiceFactory
-ServiceFactory instance=null
-ComponentRegistry mCRegistry
# ServiceFactory()
+ServiceFactory getInstance()
+HandlerContext getService(Mastei

FIG 7E

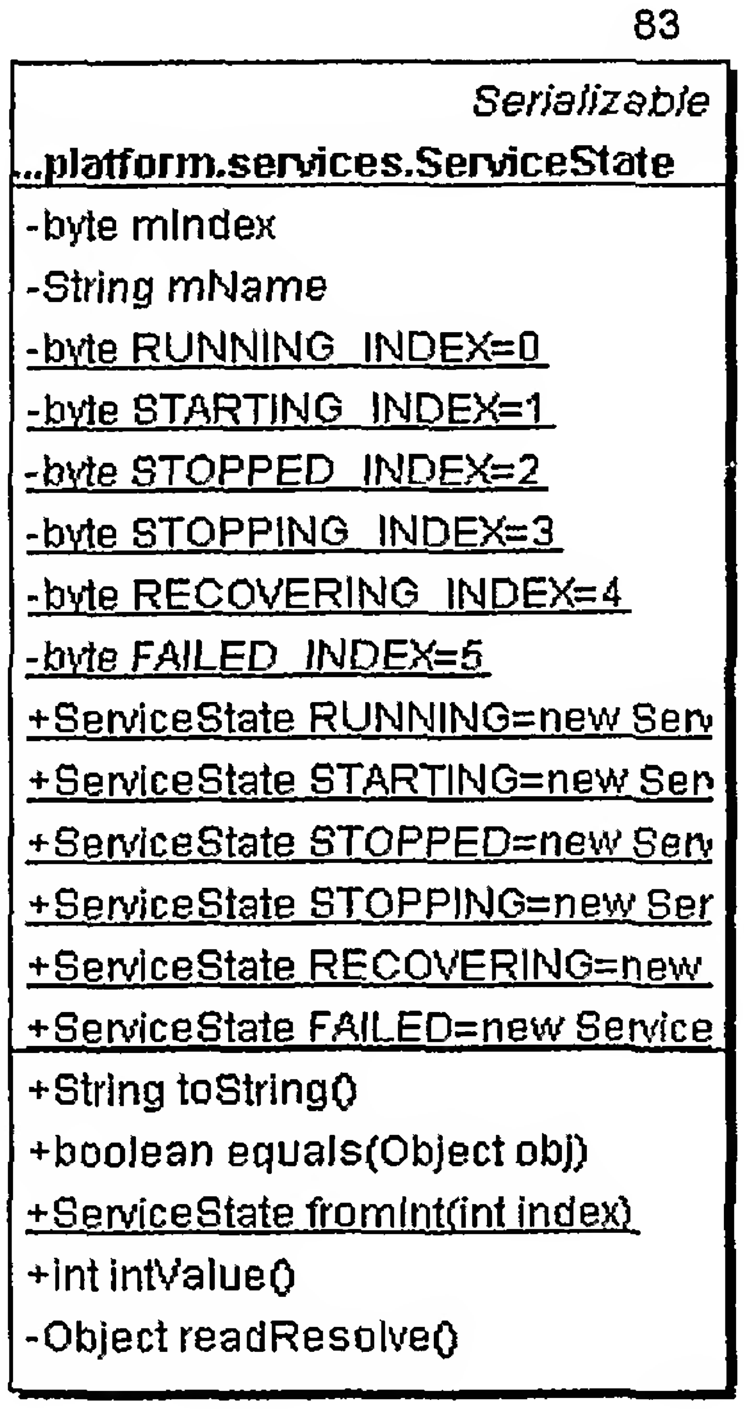

83
Serializable
...platform.services.ServiceState
-byte mIndex
-String mName
-byte RUNNING_INDEX=0
-byte STARTING_INDEX=1
-byte STOPPED_INDEX=2
-byte STOPPING_INDEX=3
-byte RECOVERING_INDEX=4
-byte FAILED_INDEX=5
+ServiceState RUNNING=new Serv
+ServiceState STARTING=new Ser
+ServiceState STOPPED=new Serv
+ServiceState STOPPING=new Ser
+ServiceState RECOVERING=new
+ServiceState FAILED=new Service
+String toString()
+boolean equals(Object obj)
+ServiceState fromInt(int index)
+int intValue()
-Object readResolve()

FIG 7F

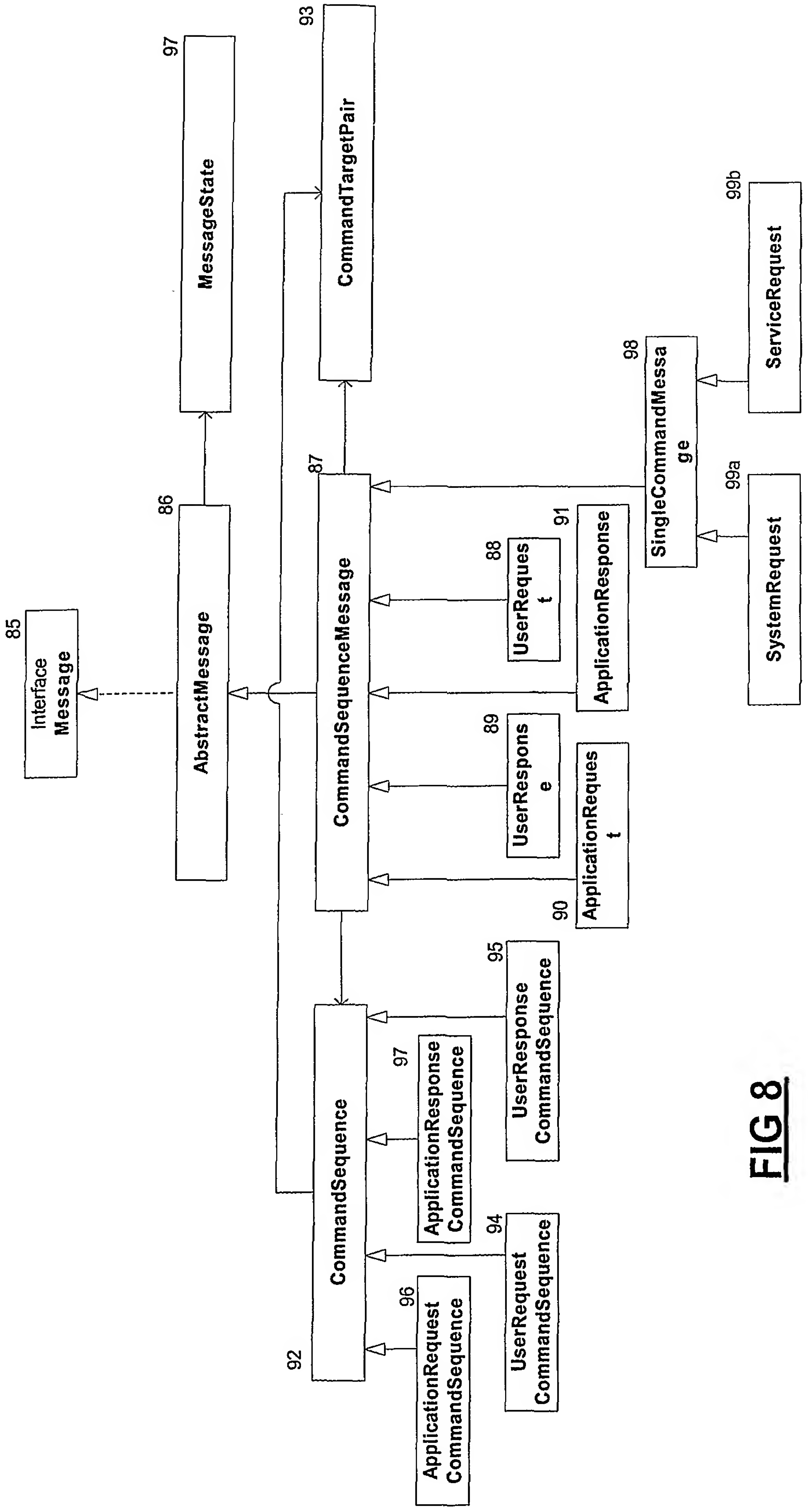
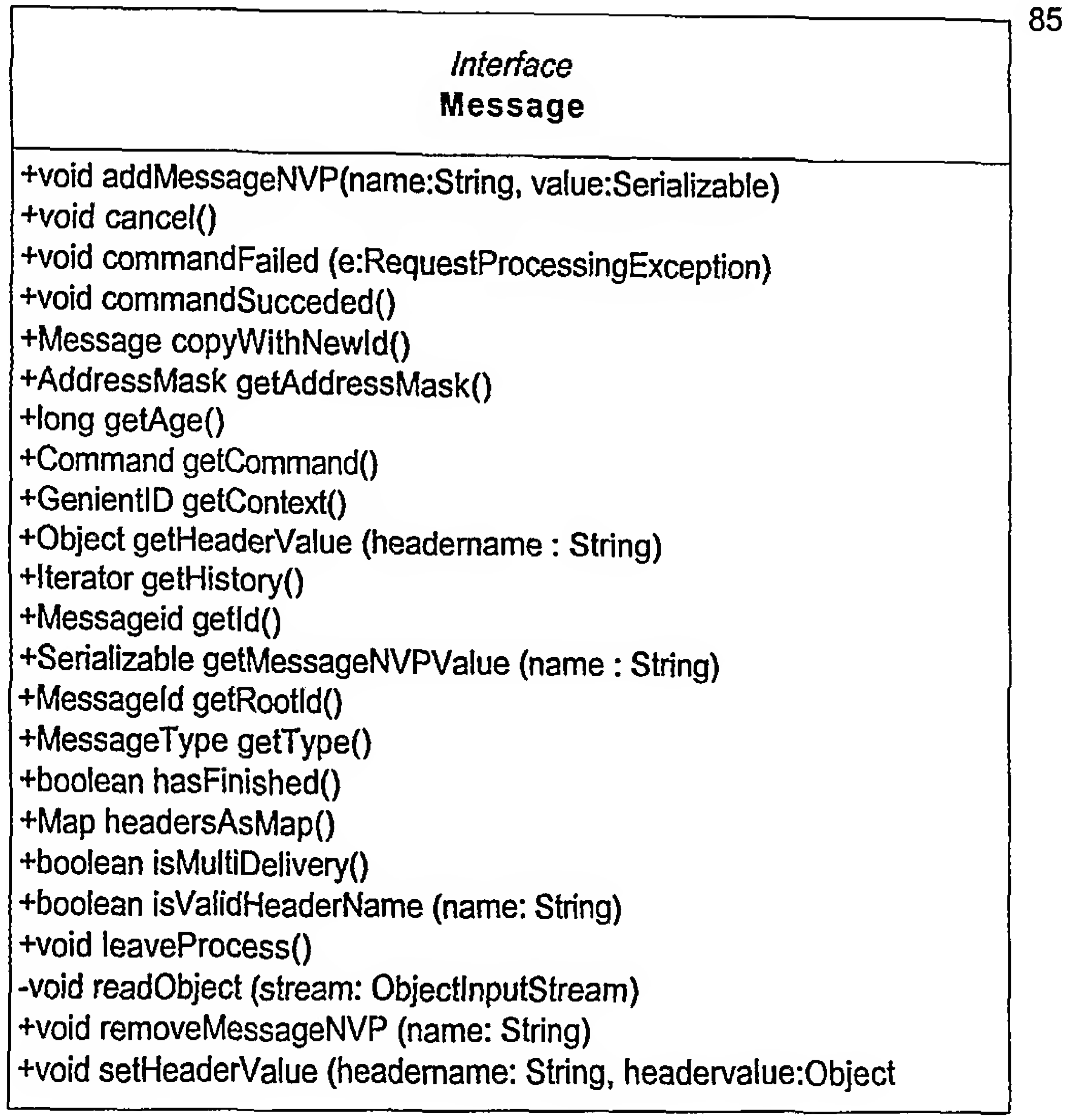

Interface Message
85
AbstractMessage
86
MessageState
97
CommandSequenceMessage
87
CommandTargetPair
93
UserReques t
88
ApplicationResponse
91
UserRespons e
89
ApplicationReques t
90
SingleCommandMessa ge
98
SystemRequest
99a
ServiceRequest
99b
CommandSequence
92
UserResponse CommandSequence
95
ApplicationResponse CommandSequence
97
UserRequest CommandSequence
94
ApplicationRequest CommandSequence
96

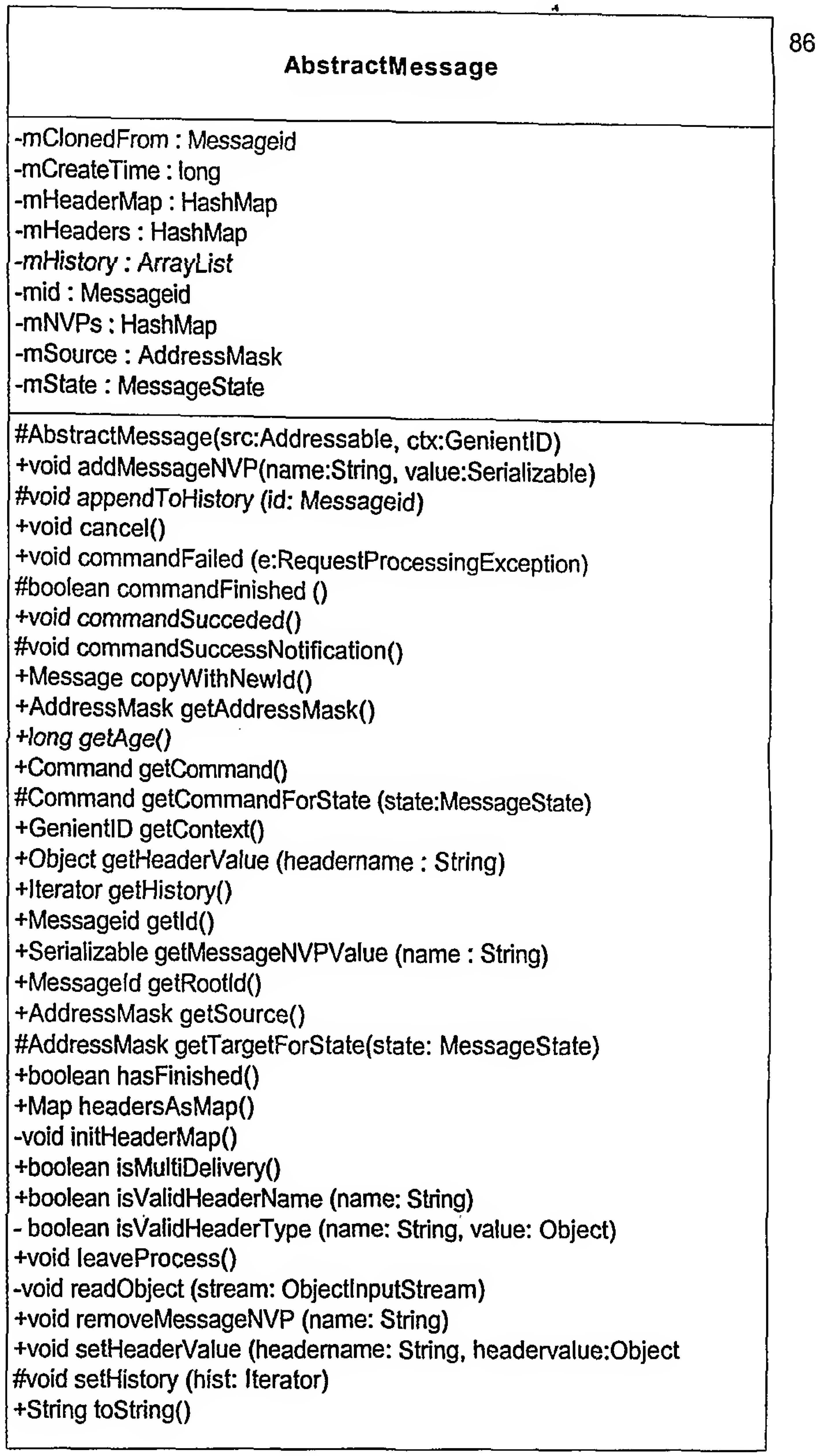
FIG 8



Interface
Message

```
+void addMessageNVP(name:String, value:Serializable)
+void cancel()
+void commandFailed (e:RequestProcessingException)
+void commandSucceded()
+Message copyWithNewld()
+AddressMask getAddressMask()
+long getAge()
+Command getCommand()
+GenientID getContext()
+Object getHeaderValue (heademame : String)
+Iterator getHistory()
+Messageid getld()
+Serializable getMessageNVPValue (name : String)
+Messageld getRootld()
+MessageType getType()
+boolean hasFinished()
+Map headersAsMap()
+boolean isMultiDelivery()
+boolean isValidHeaderName (name: String)
+void leaveProcess()
-void readObject (stream: ObjectInputStream)
+void removeMessageNVP (name: String)
+void setHeaderValue (heademame: String, headervalue:Object
```

FIG 8A

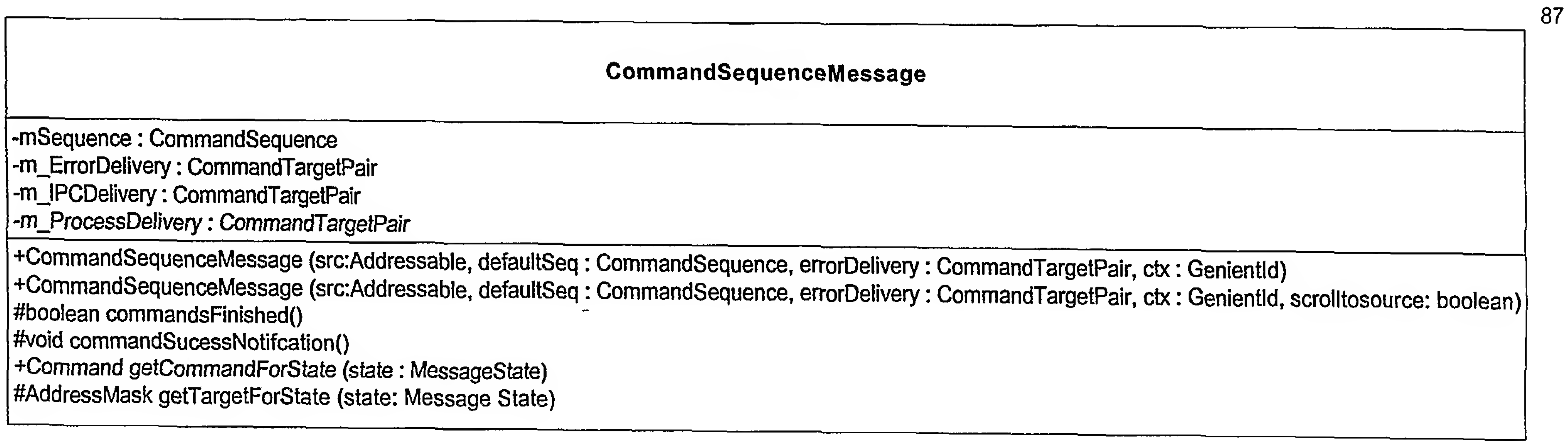


AbstractMessage

```
-mClonedFrom : Messageid
-mCreateTime : long
-mHeaderMap : HashMap
-mHeaders : HashMap
-mHistory : ArrayList
-mid : Messageid
-mNVPs : HashMap
-mSource : AddressMask
-mState : MessageState
```

```
#AbstractMessage(src:Addressable, ctx:GenientID)
+void addMessageNVP(name:String, value:Serializable)
#void appendToHistory (id: Messageid)
+void cancel()
+void commandFailed (e:RequestProcessingException)
#boolean commandFinished ()
+void commandSucceded()
#void commandSuccessNotification()
+Message copyWithNewld()
+AddressMask getAddressMask()
+long getAge()
+Command getCommand()
#Command getCommandForState (state:MessageState)
+GenientID getContext()
+Object getHeaderValue (headername : String)
+Iterator getHistory()
+Messageid getld()
+Serializable getMessageNVPValue (name : String)
+Messageld getRootld()
+AddressMask getSource()
#AddressMask getTargetForState(state: MessageState)
+boolean hasFinished()
+Map headersAsMap()
-void initHeaderMap()
+boolean isMultiDelivery()
+boolean isValidHeaderName (name: String)
- boolean isValidHeaderType (name: String, value: Object)
+void leaveProcess()
-void readObject (stream: ObjectInputStream)
+void removeMessageNVP (name: String)
+void setHeaderValue (headername: String, headervalue:Object
#void setHistory (hist: Iterator)
+String toString()
```

FIG 8B

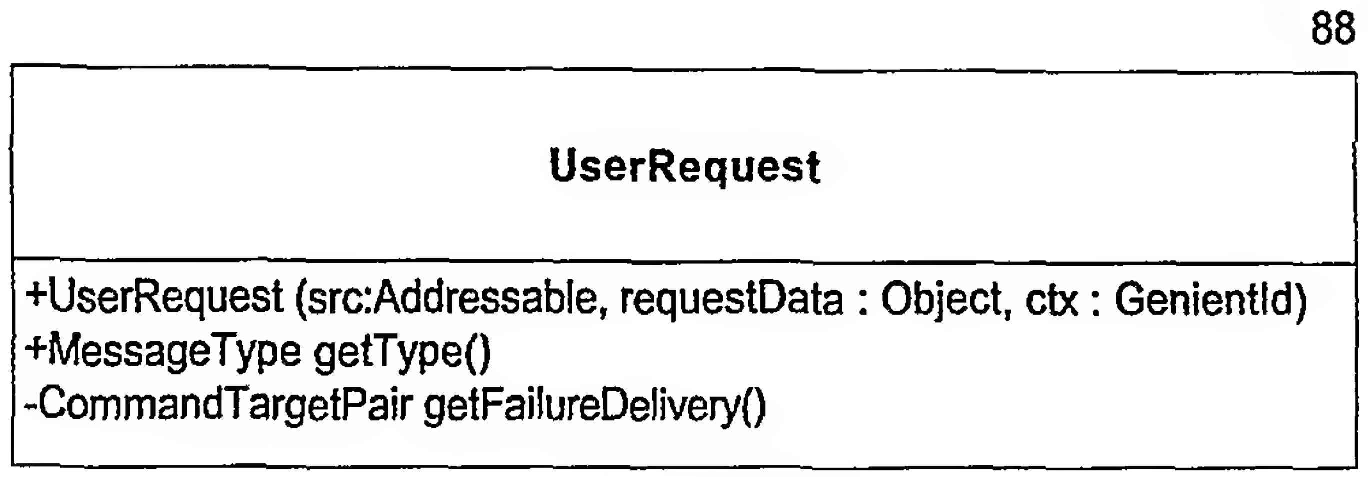


CommandSequenceMessage

-mSequence : CommandSequence
-m_ErrorDelivery : CommandTargetPair
-m_IPCDelivery : CommandTargetPair
-m_ProcessDelivery : CommandTargetPair

+CommandSequenceMessage (src:Addressable, defaultSeq : CommandSequence, errorDelivery : CommandTargetPair, ctx : GenientId)
+CommandSequenceMessage (src:Addressable, defaultSeq : CommandSequence, errorDelivery : CommandTargetPair, ctx : GenientId, scrolltosource: boolean)
#boolean commandsFinished()
#void commandSucessNotifcation()
+Command *getCommandForState (state* : MessageState)
#AddressMask getTargetForState (state: Message State)

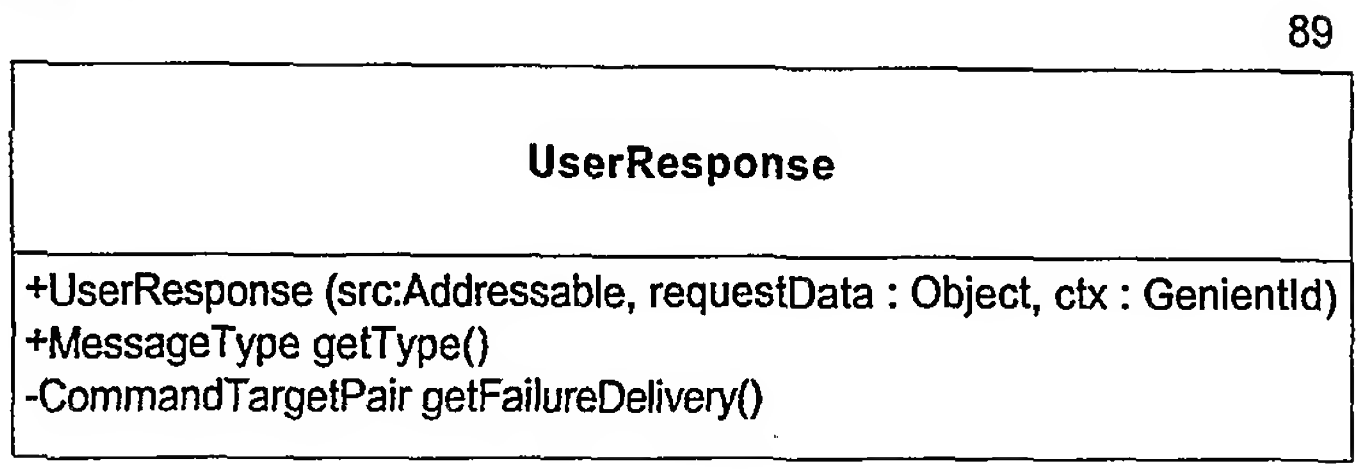
FIG 8C



UserRequest

+UserRequest (src:Addressable, requestData : Object, ctx : GenientId)
+MessageType getType()
-CommandTargetPair getFailureDelivery()

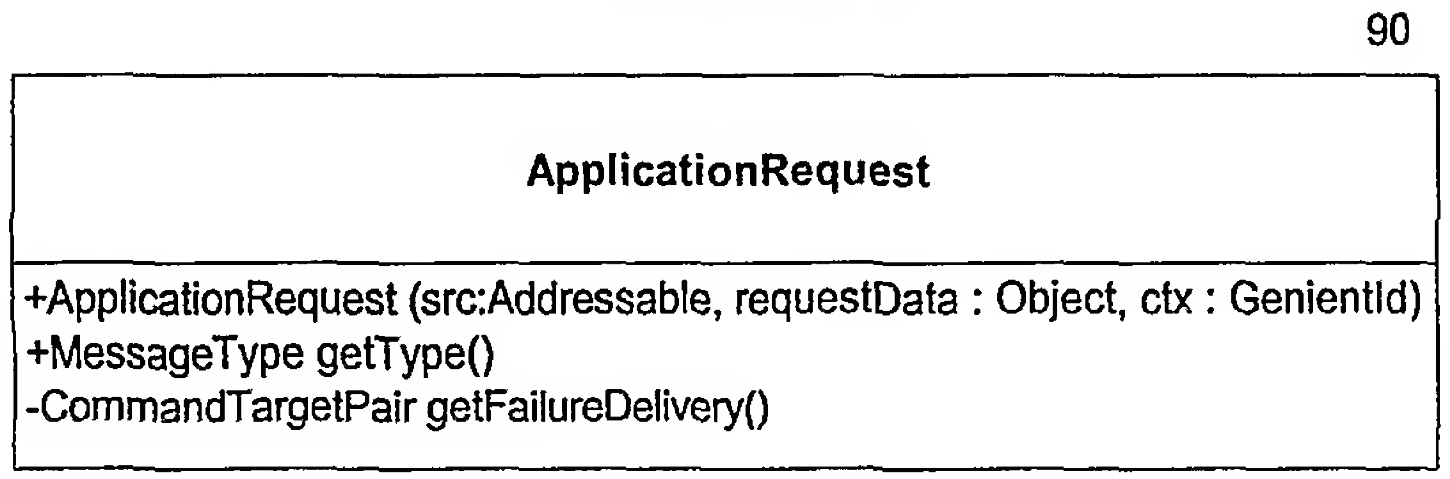
FIG 8D



UserResponse

+UserResponse (src:Addressable, requestData : Object, ctx : GenientId)
+MessageType getType()
-CommandTargetPair getFailureDelivery()

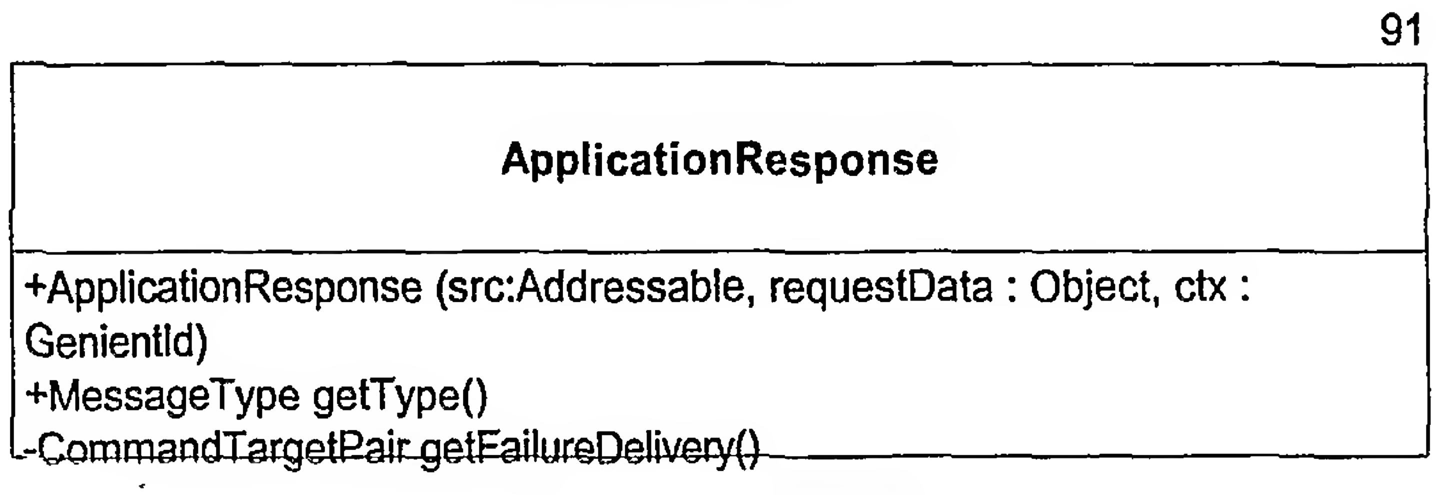
FIG 8E



ApplicationRequest

+ApplicationRequest (src:Addressable, requestData : Object, ctx : GenientId)
+MessageType getType()
-CommandTargetPair getFailureDelivery()

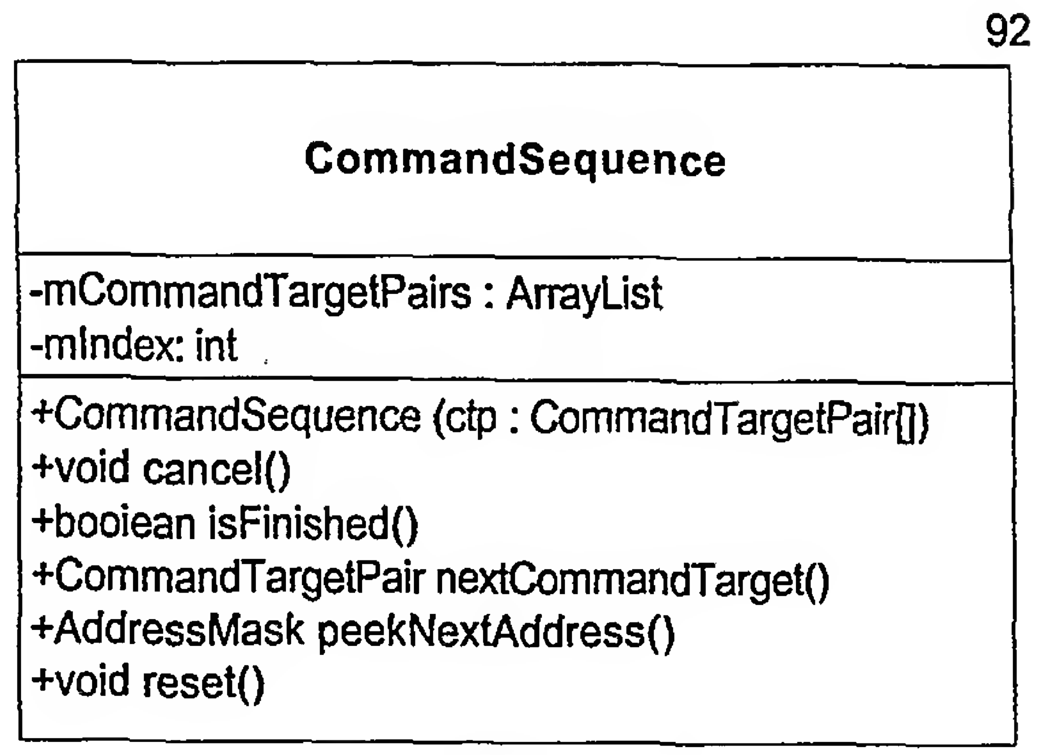
FIG 8F



ApplicationResponse

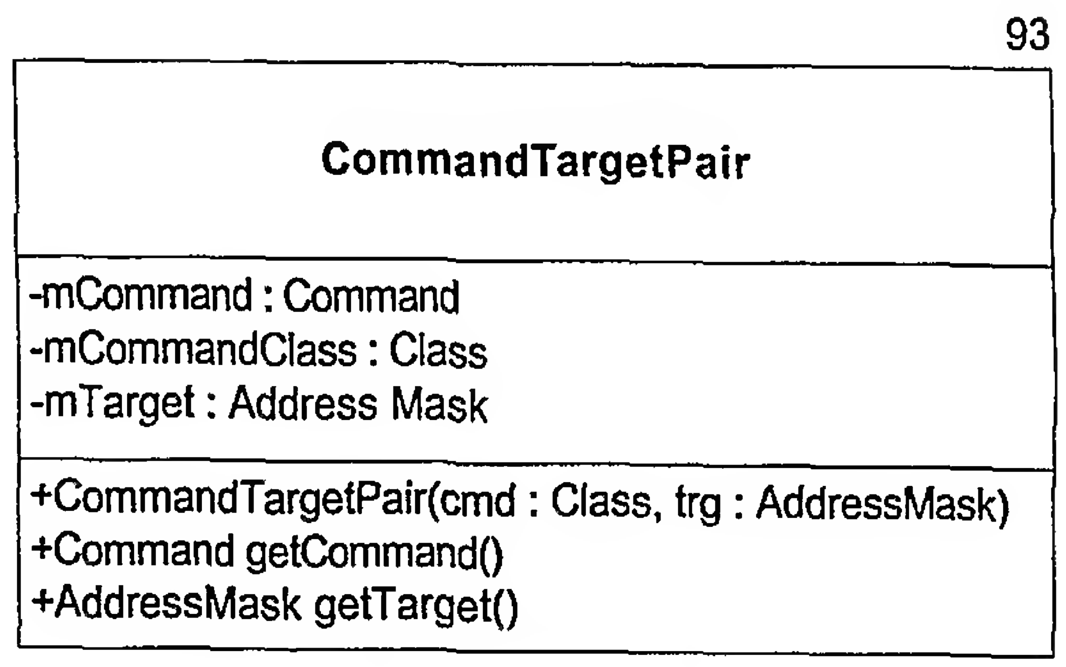
+ApplicationResponse (src:Addressable, requestData : Object, ctx : GenientId)
+MessageType getType()
~~-CommandTargetPair getFailureDelivery()~~

FIG 8G



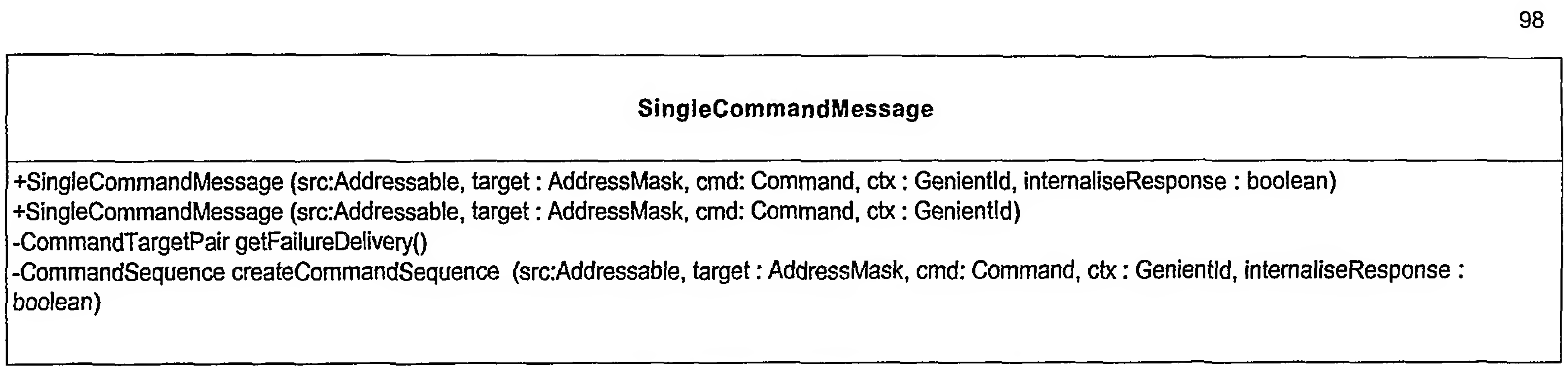
```
CommandSequence
-mCommandTargetPairs : ArrayList
-mIndex: int
+CommandSequence (ctp : CommandTargetPair[])
+void cancel()
+booiean isFinished()
+CommandTargetPair nextCommandTarget()
+AddressMask peekNextAddress()
+void reset()
```

FIG 8H



```
CommandTargetPair
-mCommand : Command
-mCommandClass : Class
-mTarget : Address Mask
+CommandTargetPair(cmd : Class, trg : AddressMask)
+Command getCommand()
+AddressMask getTarget()
```

FIG 8I



```
SingleCommandMessage
+SingleCommandMessage (src:Addressable, target : AddressMask, cmd: Command, ctx : GenientId, internaliseResponse : boolean)
+SingleCommandMessage (src:Addressable, target : AddressMask, cmd: Command, ctx : GenientId)
-CommandTargetPair getFailureDelivery()
-CommandSequence createCommandSequence  (src:Addressable, target : AddressMask, cmd: Command, ctx : GenientId, internaliseResponse :
boolean)
```

FIG 8K

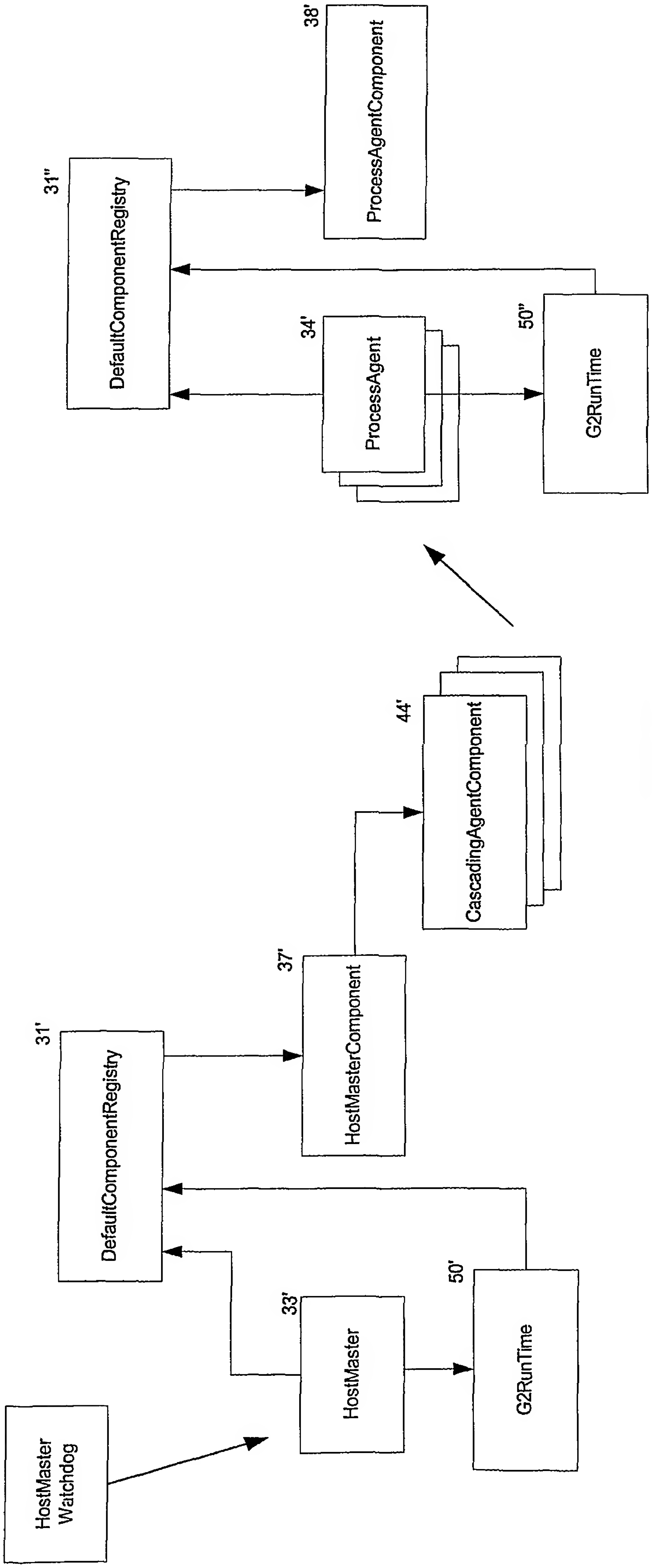

19
HostMaster Watchdog
33'
HostMaster
50'
G2RunTime
31'
DefaultComponentRegistry
37'
HostMasterComponent
44'
CascadingAgentComponent
34'
ProcessAgent
50"
G2RunTime
31"
DefaultComponentRegistry
38'
ProcessAgentComponent

FIG 9

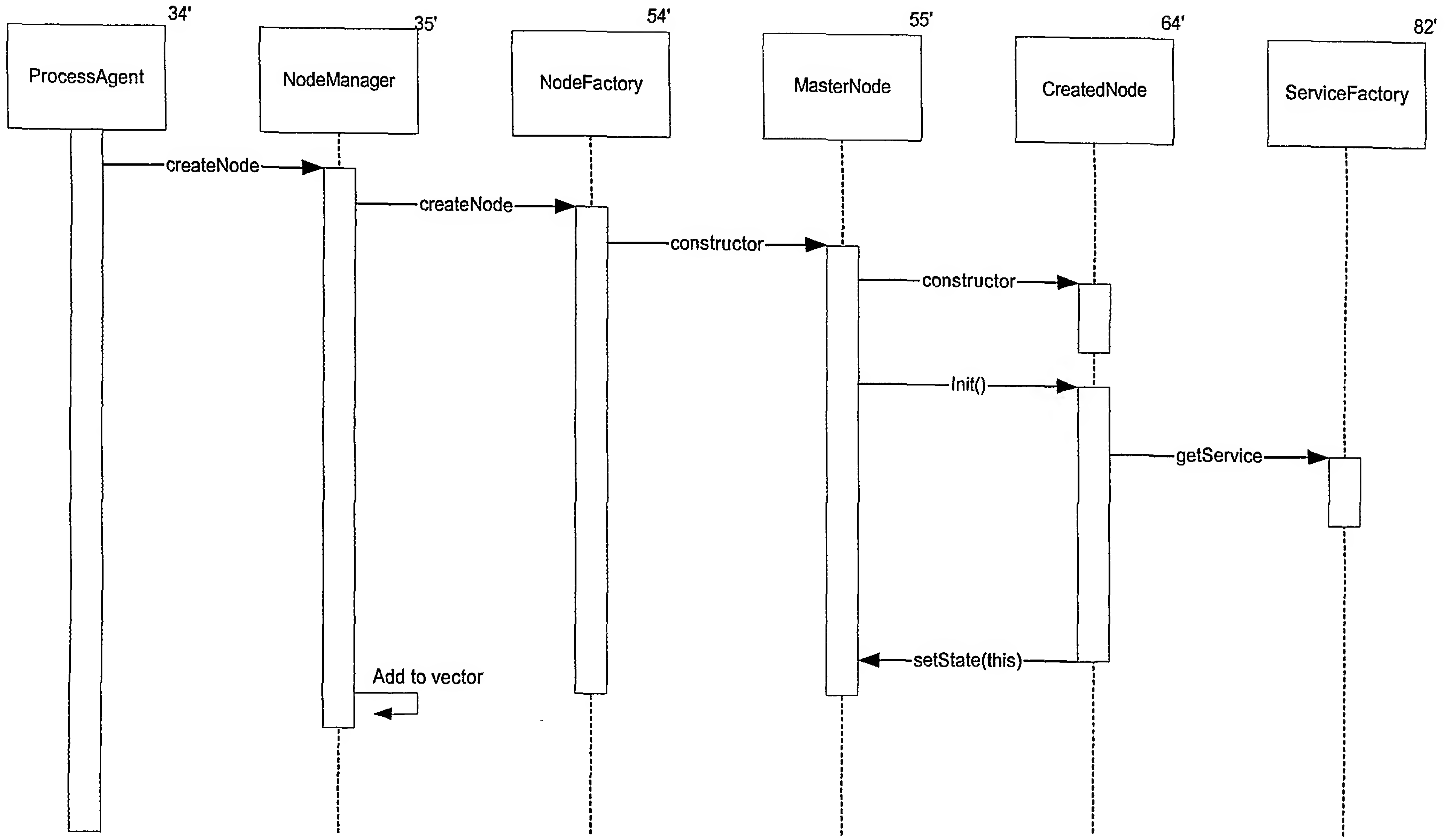

34'
ProcessAgent
35'
NodeManager
54'
NodeFactory
55'
MasterNode
64'
CreatedNode
82'
ServiceFactory
createNode
createNode
constructor
constructor
Init()
getService
setState(this)
Add to vector

FIG 10

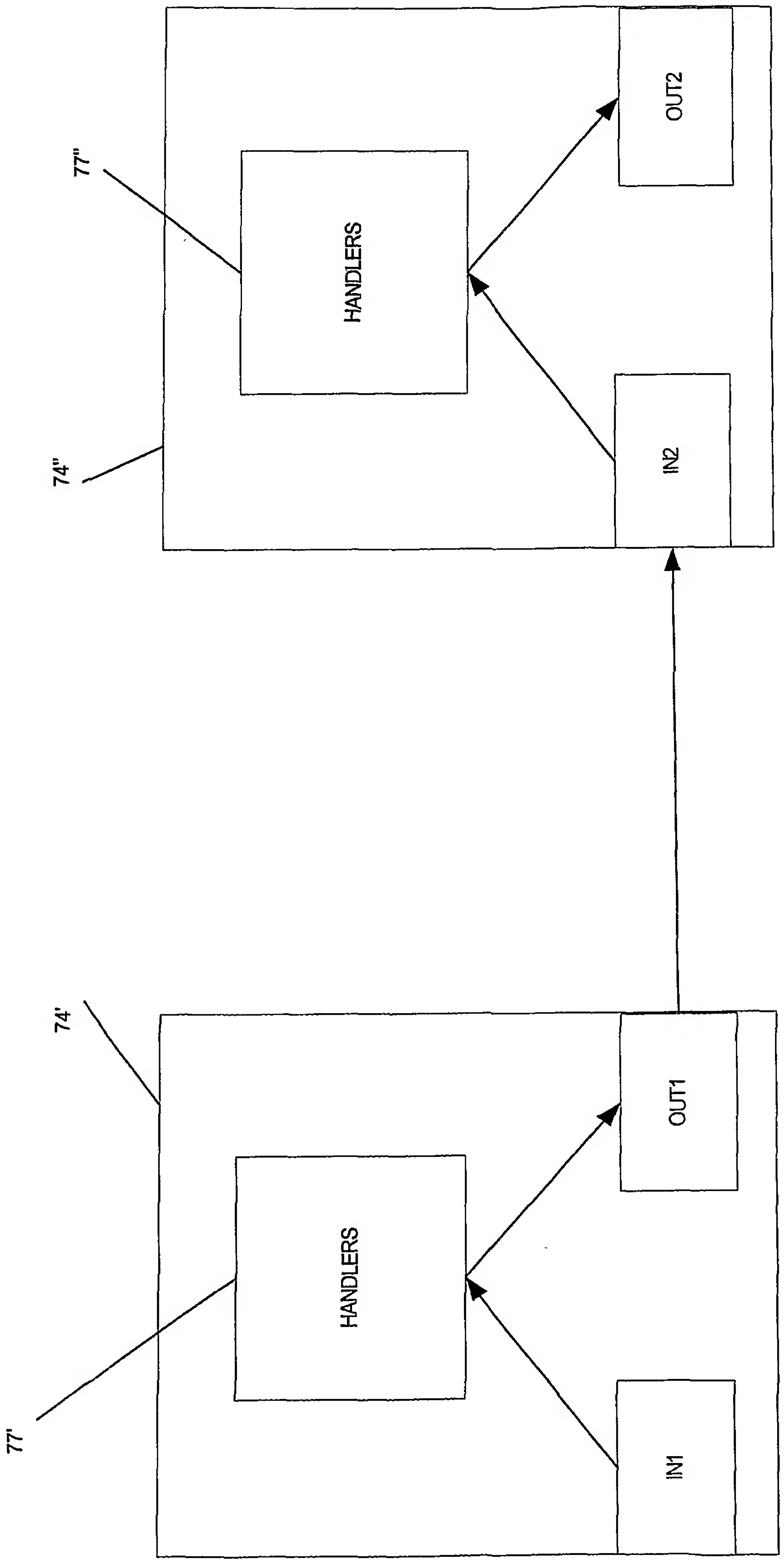


FIG 11A

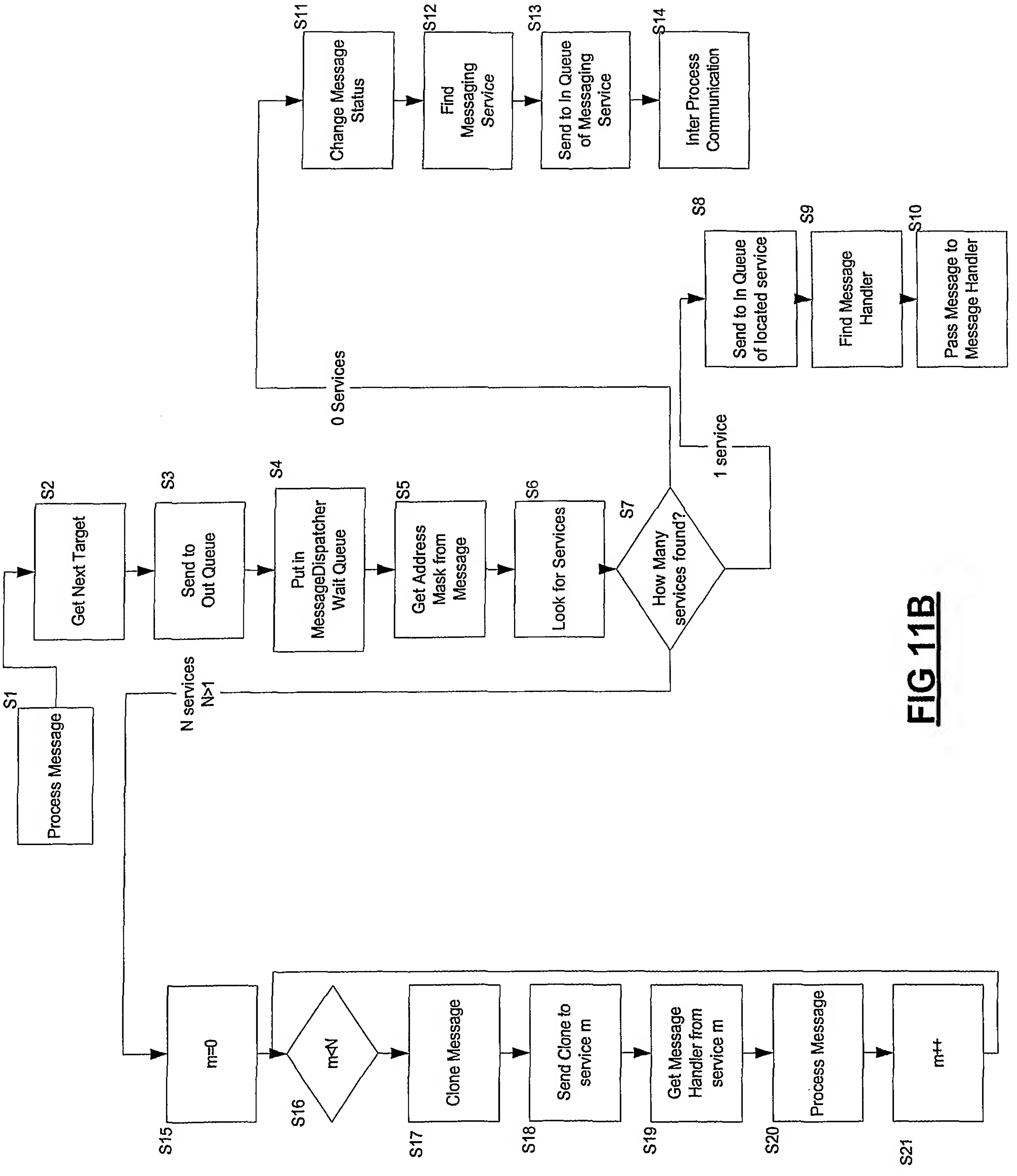

S1
Process Message
S2
Get Next Target
S3
Send to Out Queue
S4
Put in MessageDispatcher Wait Queue
S5
Get Address Mask from Message
S6
Look for Services
S7
How Many services found?
0 Services
1 service
N services N>1
S8
Send to In Queue of located service
S9
Find Message Handler
S10
Pass Message to Message Handler
S11
Change Message Status
S12
Find Messaging Service
S13
Send to In Queue of Messaging Service
S14
Inter Process Communication
S15
m=0
S16
m<N
S17
Clone Message
S18
Send Clone to service m
S19
Get Message Handler from service m
S20
Process Message
S21
m++

FIG 11B

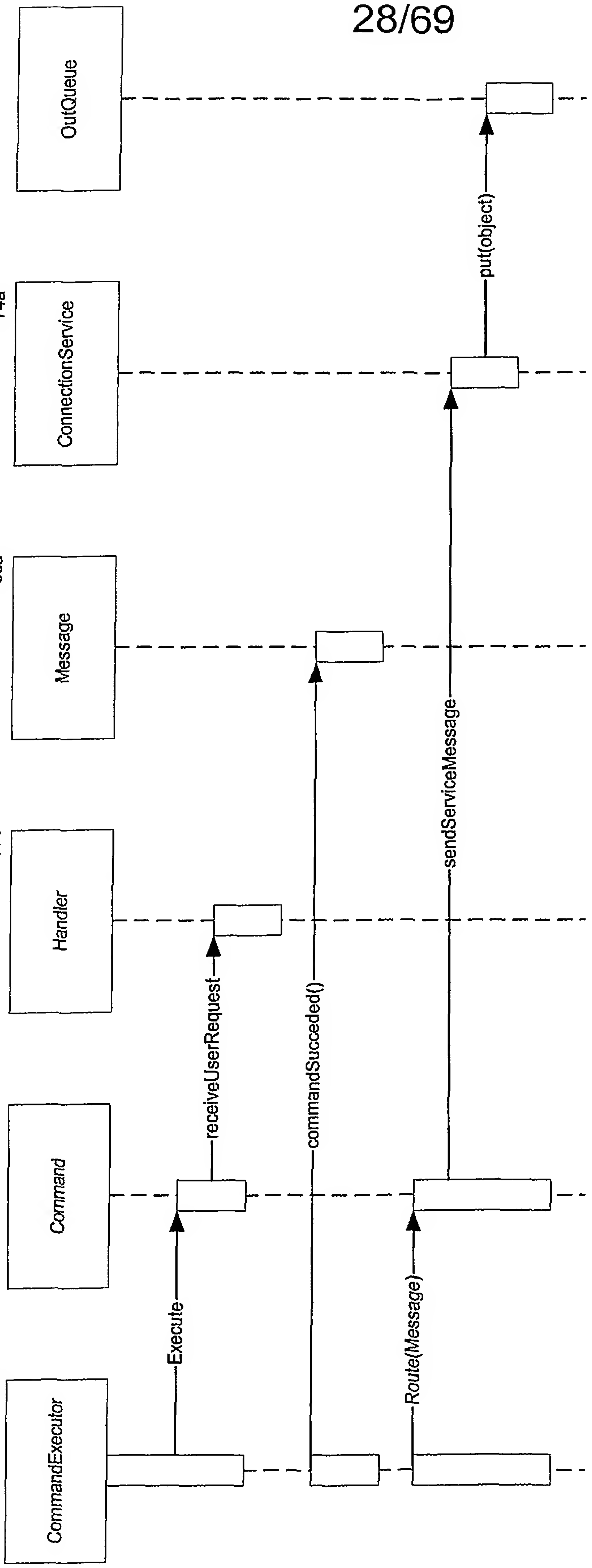

77b'
CommandExecutor
Command
77c'
Handler
88a'
Message
74a'
ConnectionService
OutQueue
Execute
receiveUserRequest
commandSucceded()
Route(Message)
sendServiceMessage
put(object)

FIG 12A

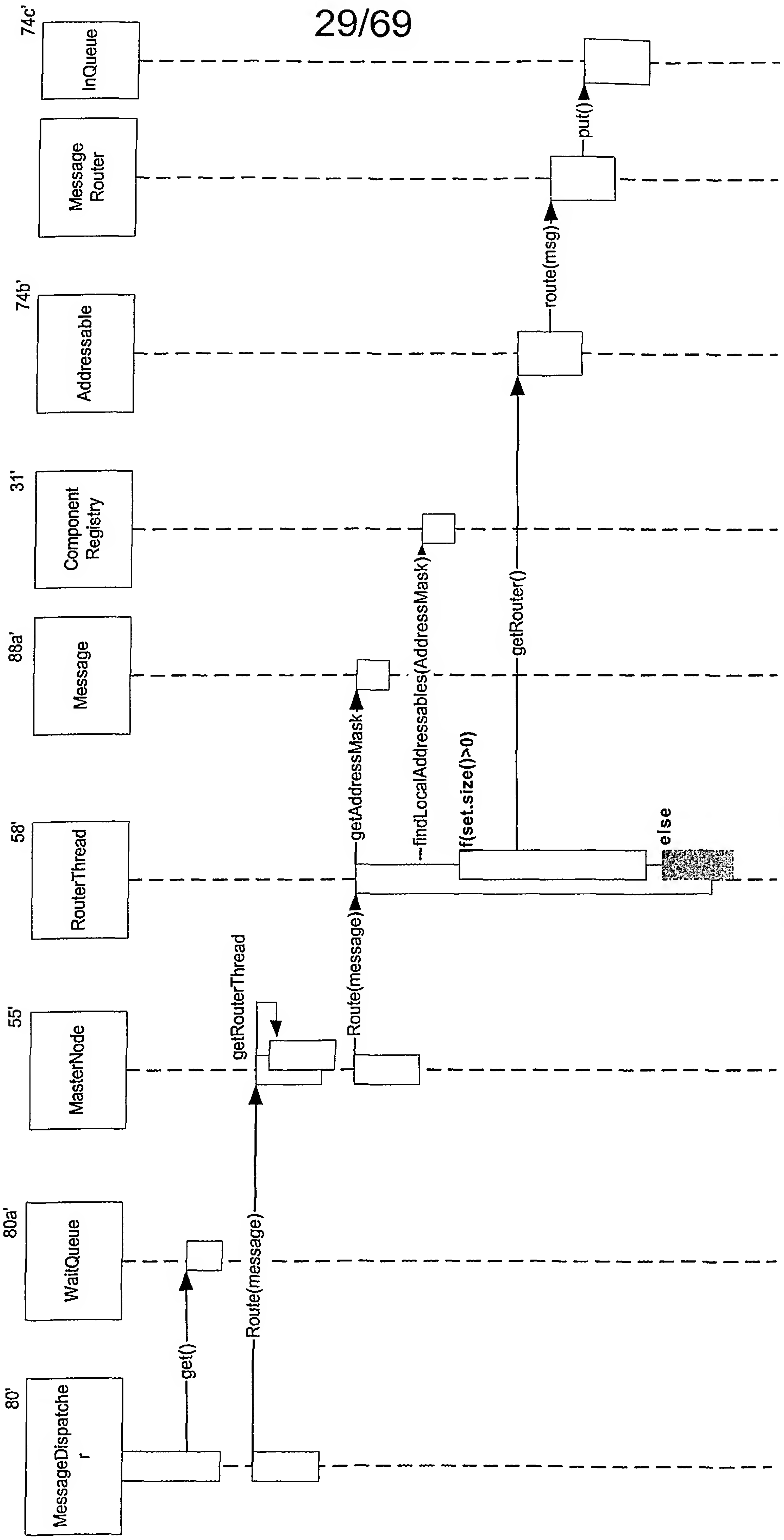

80'
MessageDispatche r
80a'
WaitQueue
55'
MasterNode
58'
RouterThread
88a'
Message
31'
Component Registry
74b'
Addressable
Message Router
74c'
InQueue
get()
Route(message)
getRouterThread
Route(message)
getAddressMask
findLocalAddressables(AddressMask)
if(set.size()>0)
getRouter()
else
route(msg)
put()

FIG 12B

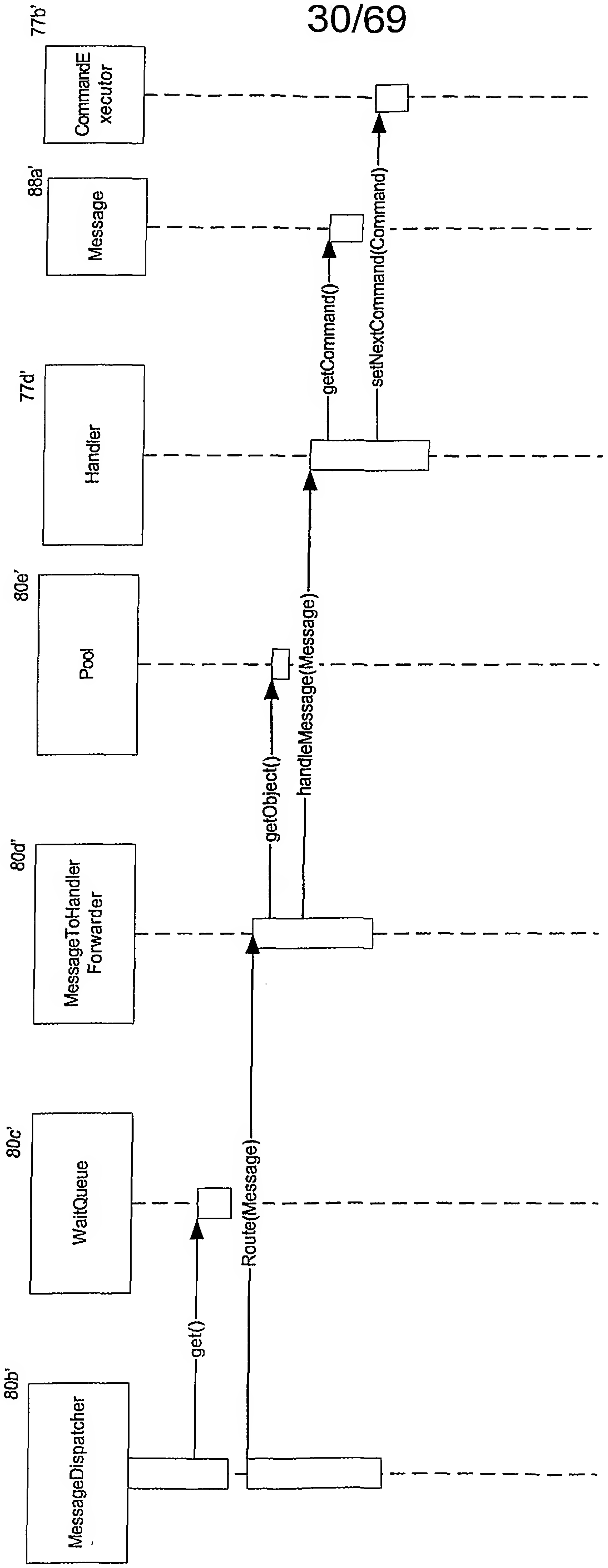
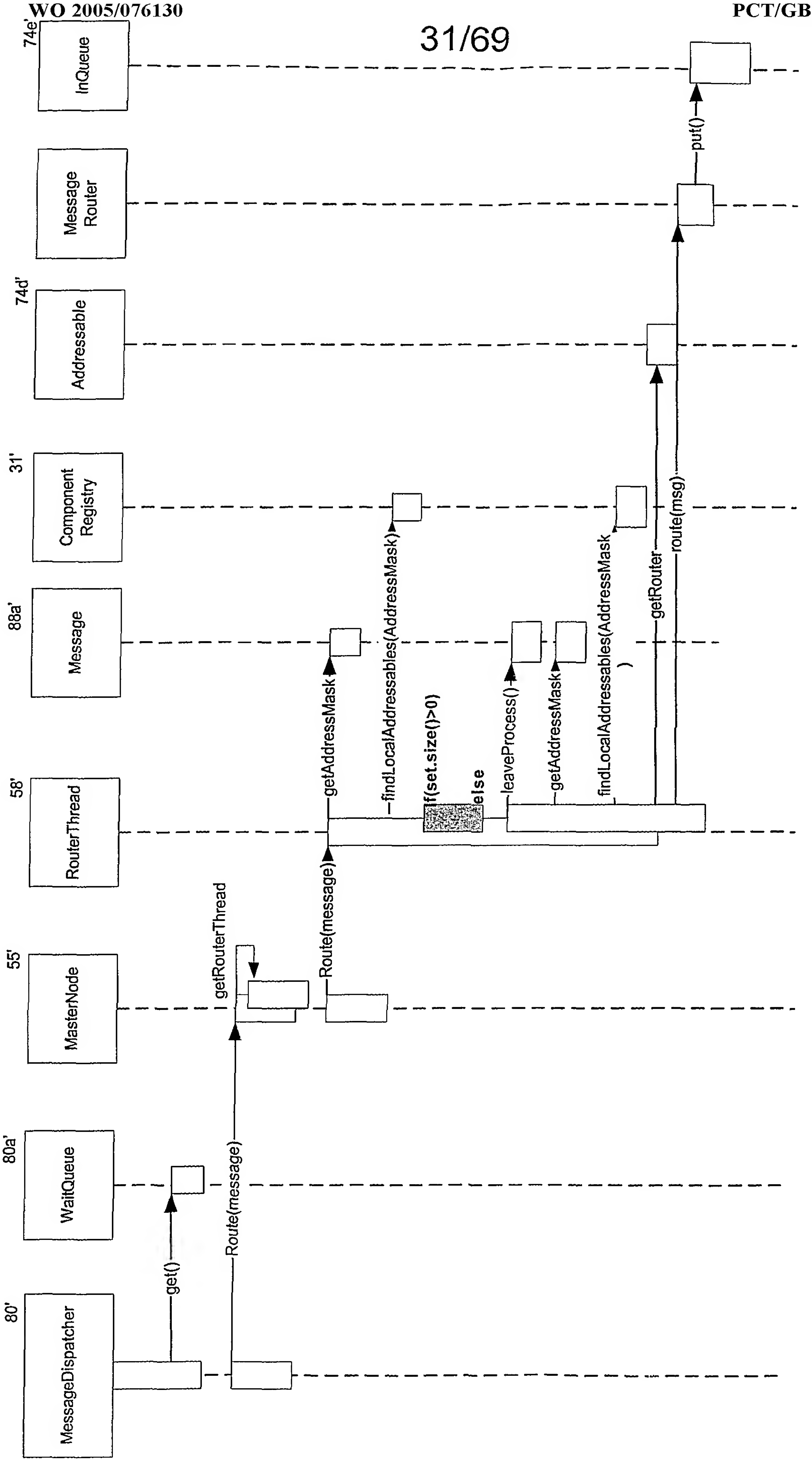

80b'
MessageDispatcher
80c'
WaitQueue
80d'
MessageToHandler Forwarder
80e'
Pool
77d'
Handler
88a'
Message
77b'
CommandE xecutor
get()
Route(Message)
getObject()
handleMessage(Message)
getCommand()
setNextCommand(Command)

FIG 12C



80'
MessageDispatcher
80a'
WaitQueue
55'
MasterNode
58'
RouterThread
88a'
Message
31'
Component Registry
74d'
Addressable
Message Router
74e'
InQueue
get()
Route(message)
getRouterThread
Route(message)
getAddressMask
findLocalAddressables(AddressMask)
if(set.size()>0)
else
leaveProcess()
getAddressMask
findLocalAddressables(AddressMask
)
getRouter
route(msg)
put()

FIG 12D

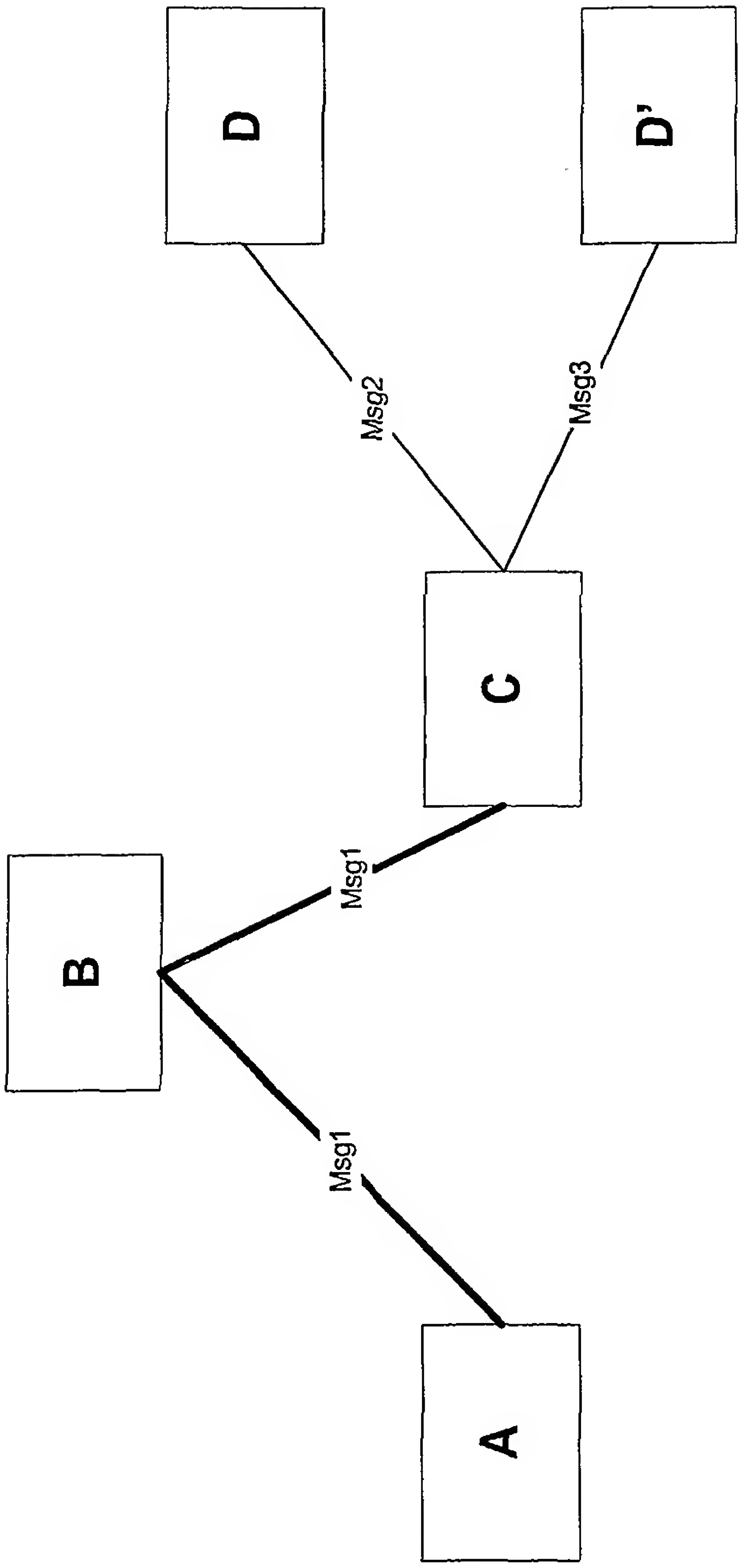


FIG 13

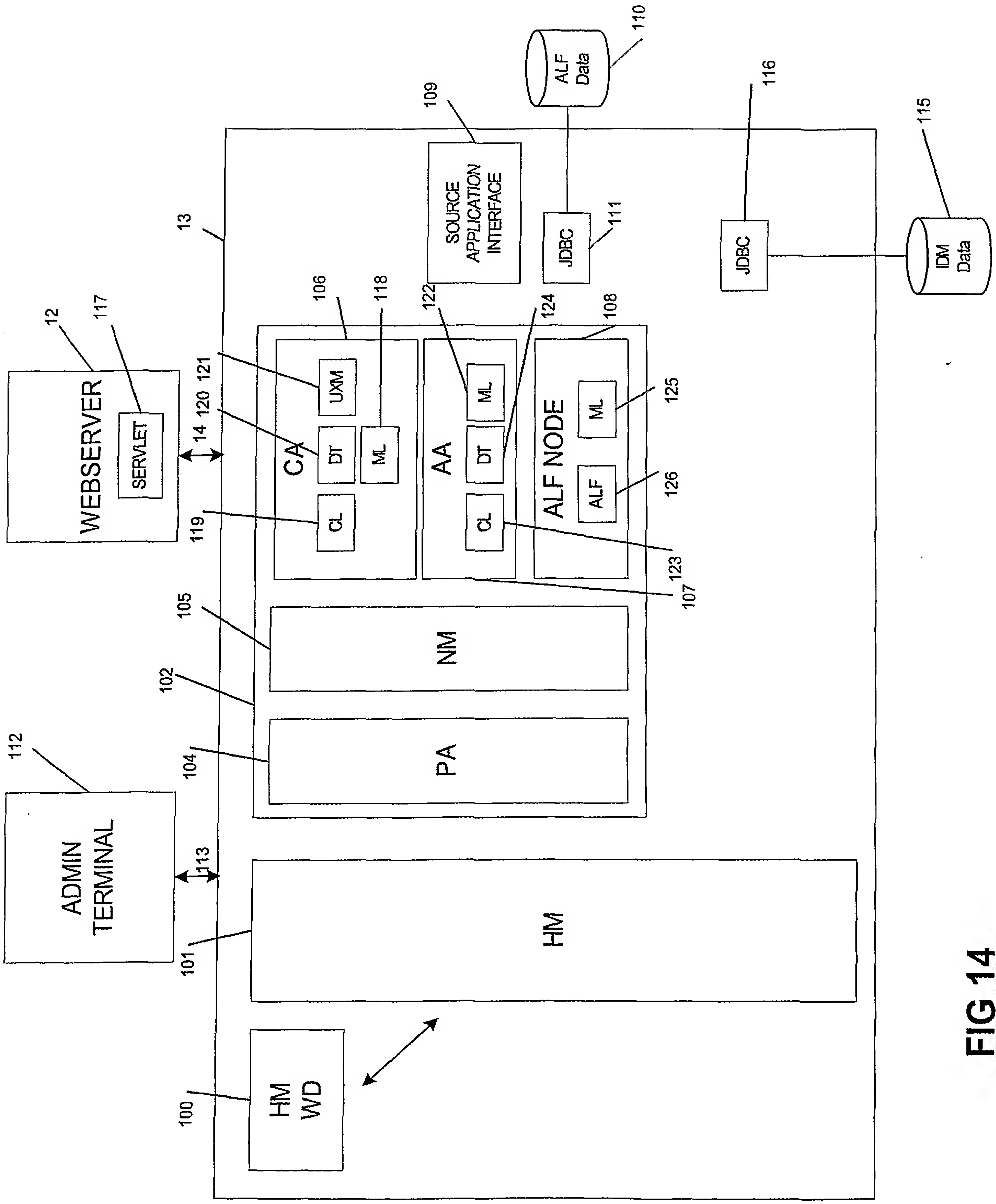

WEBSERVER
SERVLET
12
117
14
ADMIN TERMINAL
112
113
13
HM WD
100
HM
101
PA
104
102
NM
105
CA
CL
DT
ML
UXM
119
120
121
106
118
AA
CL
DT
ML
122
124
123
107
ALF NODE
ALF
ML
125
126
108
SOURCE APPLICATION INTERFACE
109
JDBC
111
ALF Data
110
JDBC
116
IDM Data
115

FIG 14

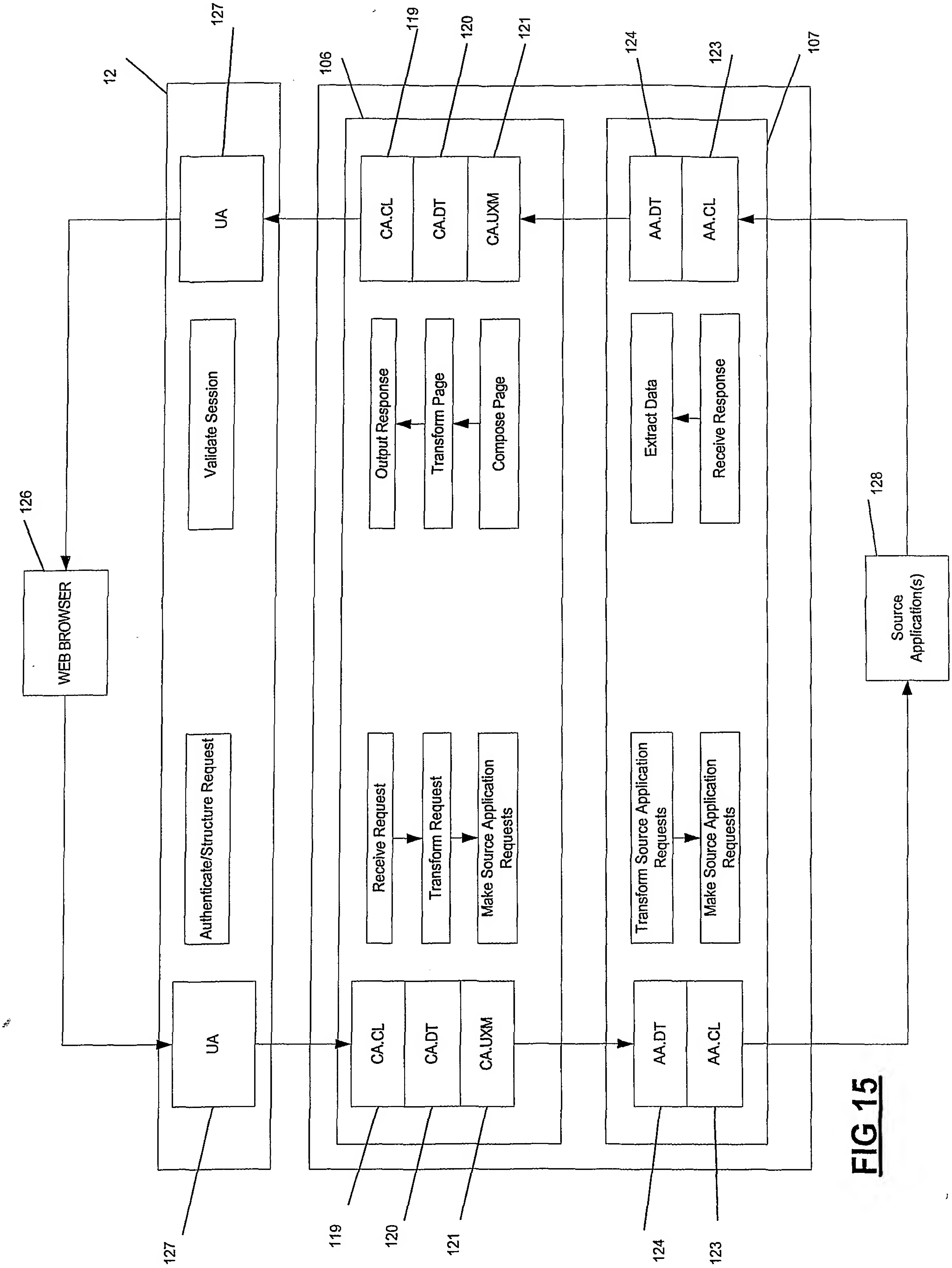

WEB BROWSER
126
12
127
UA
Validate Session
Authenticate/Structure Request
UA
127
106
119
120
121
CA.CL
CA.DT
CA.UXM
Output Response
Transform Page
Compose Page
Receive Request
Transform Request
Make Source Application Requests
CA.CL
CA.DT
CA.UXM
119
120
121
107
124
123
AA.DT
AA.CL
Extract Data
Receive Response
Transform Source Application Requests
Make Source Application Requests
AA.DT
AA.CL
124
123
128
Source Application(s)

FIG 15

Parameter	Req.	Type	Values	Notes
g2jms.config	Y	Str		File containing the jms configuration properties for the Listener *e.g. g2jms.config=c:\conf\jms.properties*
g2listener	Y	Str		This is the name of the node under the UAconfigs node in the IDM containing the listener configuration. e.g. g2listener=weblistener
g2config.instance	Y	Str		Node in the IDM that has an instance definition for the Composite Application. [shouldn't be necessary but is in current release e.g. g2config.instance=googleweb
g2config.home	Y	Str		**Directory** containing the IDM properties file for the Composer/Listener. This has to point to a directory containing the file rather than the file. e.g. g2config.home=c:\GCP\2.3.0\conf
g2tracer.conf	Y	Str		File containing the logger configuration for the Listener. e.g. g2tracer.conf=c:\conf\listenerlog.conf

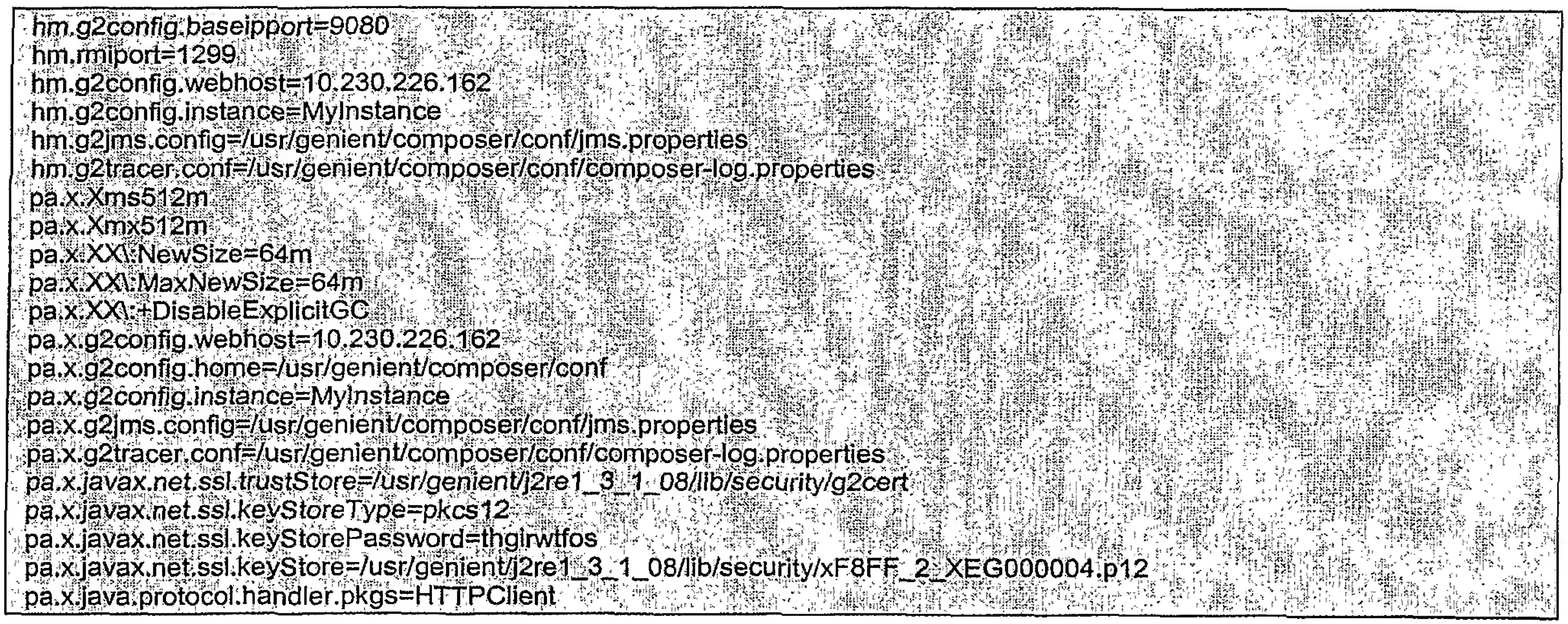
FIG 16

Parameter	Req.	Type	Values	Notes
G2config.home	Y	Str		**Directory** containing the IDM properties file for the Composer/Listener. This has to point to a directory *containing the 'IDM.properties' file rather than the file* itself e.g. g2config.home=c:\GCP2.3.0\conf
g2config.instance	Y	Str		Node in the IDM that has an instance definition for the Composite Application. e.g. g2config.instance=googleweb
g2config.webhost	Y	Str		Host-name (or IP address) and port, of the Web Server used with the Listener. Used to rewrite the pages served up through the composer to point back to the listener. e.g. g2config.webhost=192.168.1.229:80
g2config.baseipport	Y	Str		Specify the Admin console port e.g. *g2config.baseipport=8080*
g2jms.config	Y	Str		File containing the jms configuration properties for the Composer e.g. g2jms.config=c:\conf\jms.properties
g2basetracer.conf	Y	Str		File name containing the logger configuration(s) for the Listener – *it will look for a file per process so there* needs to be at least a '0' and a '1' log file. e.g. g2tracer.conf=c:\conf\composerlog.conf

FIG 17

Name	Req.	Type	Values	Notes
APPLICATION_CLASS	Y	Str		Destination service for the **incominguserrequest** message that will be generated. This is the application class name used for the composite application.
UXM_MODIFIED	Y	Str	true/false	Set to true if the request is to be processed by the Composer. If false, then the UXM will not process the request and pass it on to the AA (pass through applications)
UXM_TREEID	Y	Str		The 'id' (from the control data-group) of the TreeRootNode targeted by this request.
UXM_NODEID	Y	Str		The 'id' (from the control data-group) of the TreeNode (within the hierarchy defined by UXM_TREEID) targeted by this request.

FIG 18



```
hm.g2config.baseipport=9080
hm.rmiport=1299
hm.g2config.webhost=10.230.226.162
hm.g2config.instance=MyInstance
hm.g2jms.config=/usr/genient/composer/conf/jms.properties
hm.g2tracer.conf=/usr/genient/composer/conf/composer-log.properties
pa.x.Xms512m
pa.x.Xmx512m
pa.x.XX\:NewSize=64m
pa.x.XX\:MaxNewSize=64m
pa.x.XX\:+DisableExplicitGC
pa.x.g2config.webhost=10.230.226.162
pa.x.g2config.home=/usr/genient/composer/conf
pa.x.g2config.instance=MyInstance
pa.x.g2jms.config=/usr/genient/composer/conf/jms.properties
pa.x.g2tracer.conf=/usr/genient/composer/conf/composer-log.properties
pa.x.javax.net.ssl.trustStore=/usr/genient/j2re1_3_1_08/lib/security/g2cert
pa.x.javax.net.ssl.keyStoreType=pkcs12
pa.x.javax.net.ssl.keyStorePassword=thgirwtfos
pa.x.javax.net.ssl.keyStore=/usr/genient/j2re1_3_1_08/lib/security/xF8FF_2_XEG000004.p12
pa.x.java.protocol.handler.pkgs=HTTPClient
```

FIG 19

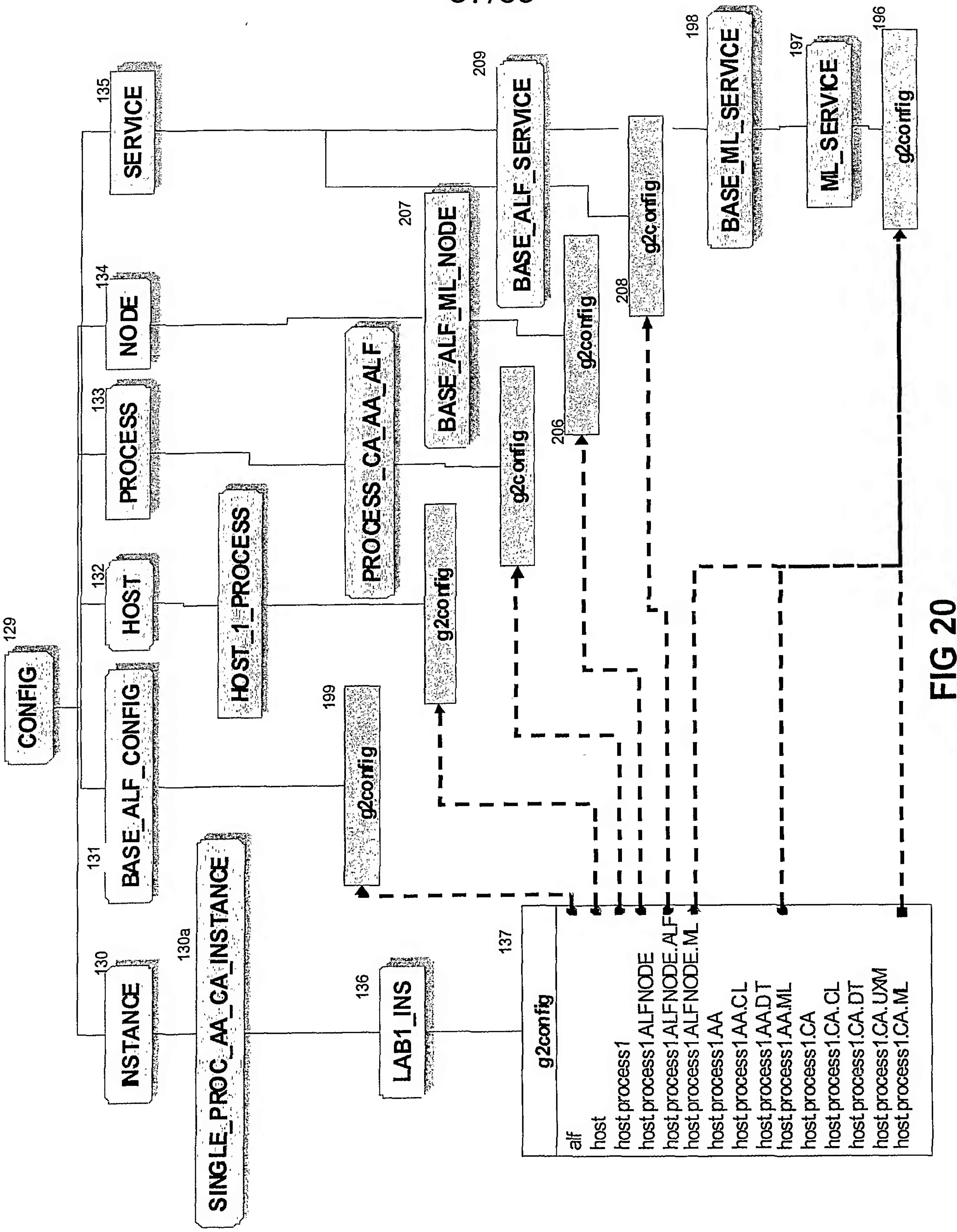

CONFIG
129
NSTANCE
130
BASE_ALF_CONFIG
131
HOST
132
PROCESS
133
NODE
134
SERVICE
135
SINGLE_PROC_AA_CA_INSTANCE
130a
HOST_1_PROCESS
PROCESS_CA_AA_ALF
BASE_ALF_ML_NODE
207
BASE_ALF_SERVICE
209
BASE_ML_SERVICE
198
ML_SERVICE
197
g2config
196
g2config
208
g2config
206
g2config
g2config
g2config
199
LAB1_INS
136
g2config
137
alf
host
host.process1
host.process1.ALFNODE
host.process1.ALFNODE.ALF
host.process1.ALFNODE.ML
host.process1.AA
host.process1.AA.CL
host.process1.AA.DT
host.process1.AA.ML
host.process1.CA
host.process1.CA.CL
host.process1.CA.DT
host.process1.CA.UXM
host.process1.CA.ML

FIG 20

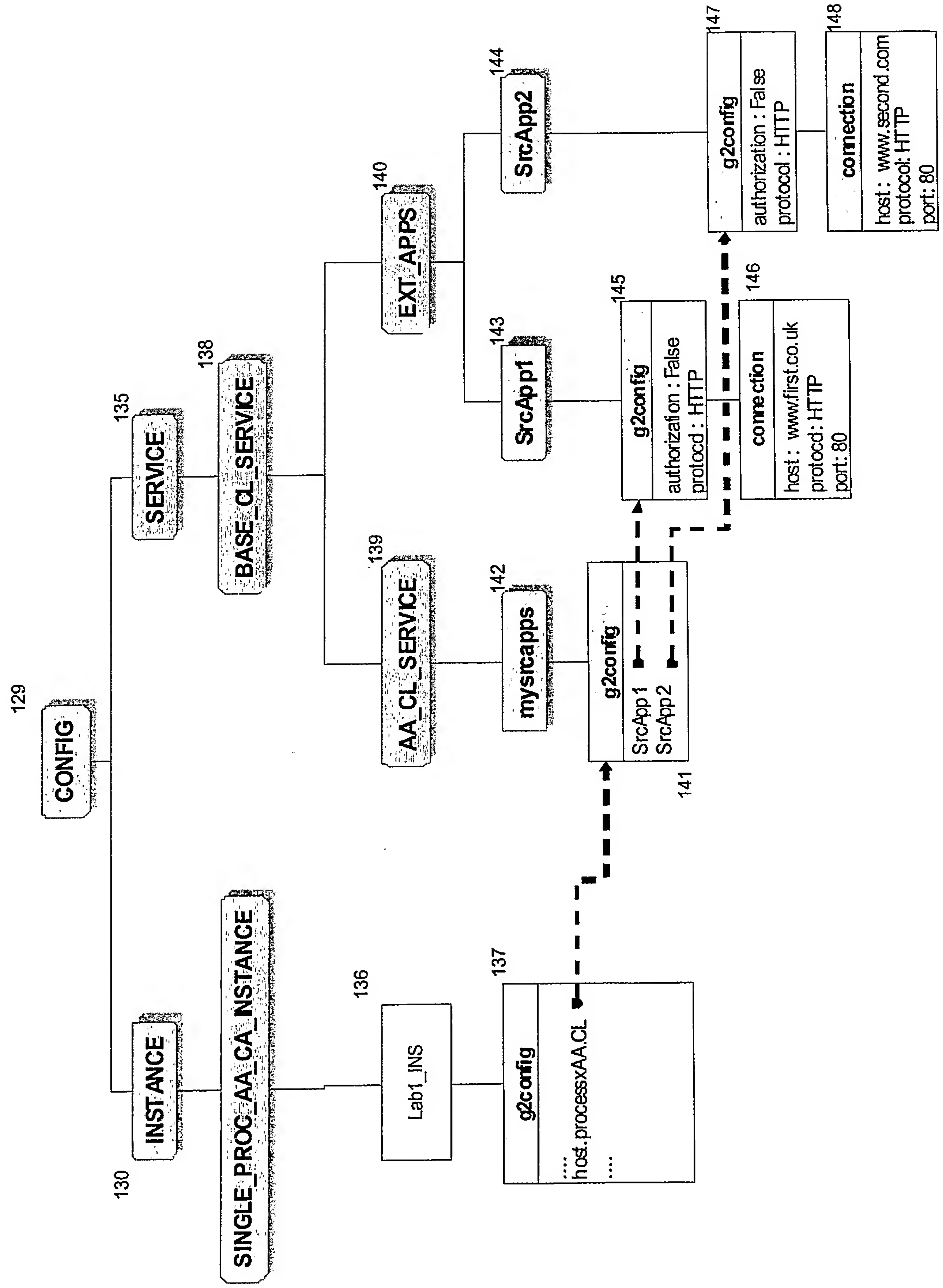

129
CONFIG
130
INSTANCE
SINGLE_PROC_AA_CA_INSTANCE
136
Lab1_INS
137
g2config
....
host.processxAA.CL
....
135
SERVICE
138
BASE_CL_SERVICE
139
AA_CL_SERVICE
142
mysrcapps
141
g2config
SrcApp1
SrcApp2
140
EXT_APPS
143
SrcApp1
145
g2config
authorization : False
protocol : HTTP
146
connection
host : www.first.co.uk
protocol : HTTP
port: 80
144
SrcApp2
147
g2config
authorization : False
protocol : HTTP
148
connection
host : www.second.com
protocol: HTTP
port: 80

FIG 21

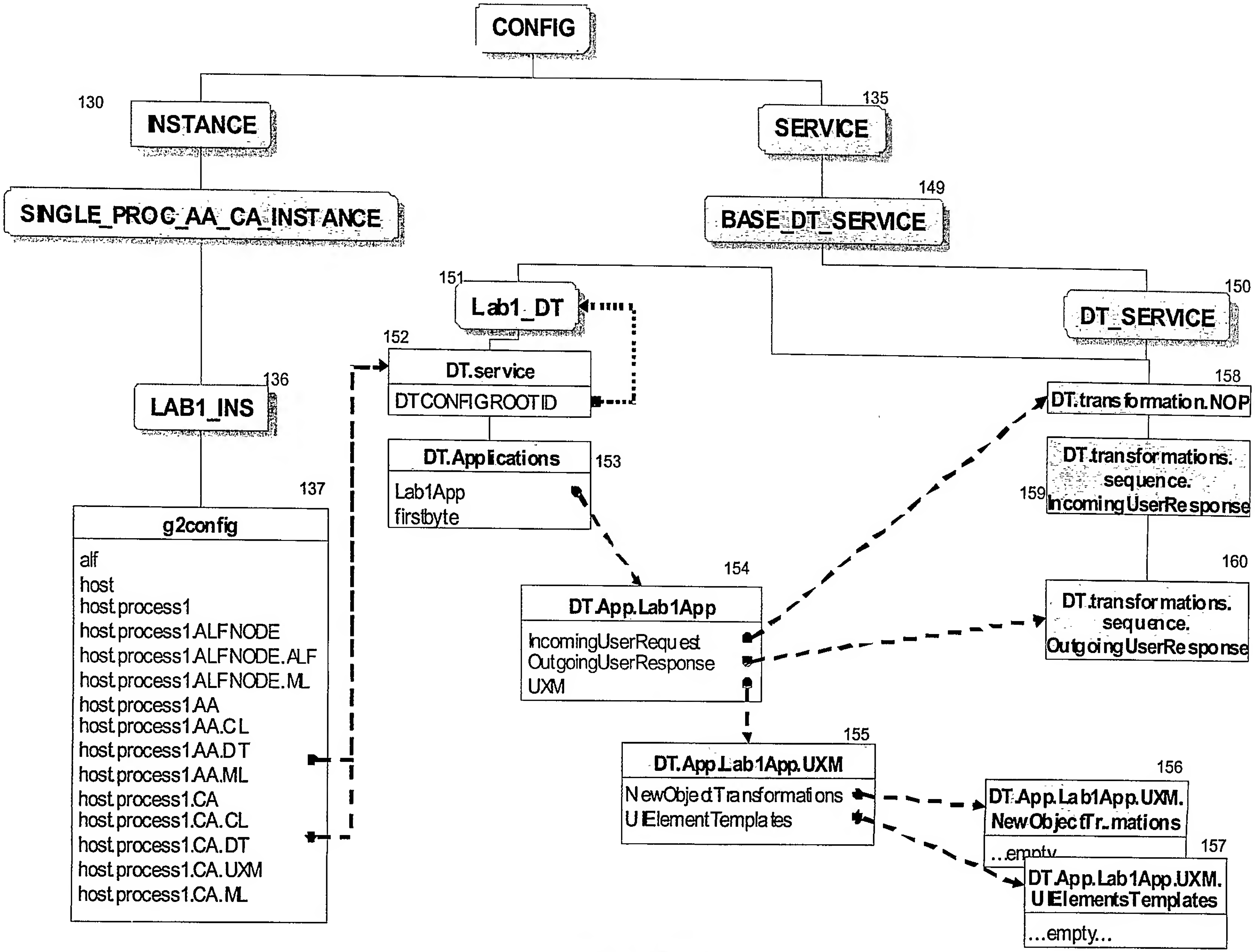

CONFIG
130
INSTANCE
135
SERVICE
SINGLE_PROC_AA_CA_INSTANCE
149
BASE_DT_SERVICE
151
Lab1_DT
150
DT_SERVICE
136
LAB1_INS
152
DT.service
DTCONFIGROOTID
158
DT.transformation.NOP
DT.Applications
153
Lab1App
firstbyte
DT.transformations.
sequence.
159
IncomingUserResponse
137
g2config
alf
host
host.process1
host.process1.ALFNODE
host.process1.ALFNODE.ALF
host.process1.ALFNODE.ML
host.process1.AA
host.process1.AA.CL
host.process1.AA.DT
host.process1.AA.ML
host.process1.CA
host.process1.CA.CL
host.process1.CA.DT
host.process1.CA.UXM
host.process1.CA.ML
154
DT.App.Lab1App
IncomingUserRequest
OutgoingUserResponse
UXM
160
DT.transformations.
sequence.
OutgoingUserResponse
155
DT.App.Lab1App.UXM
NewObjectTransformations
UIElementTemplates
156
DT.App.Lab1App.UXM.
NewObjectTr..mations
...empty
157
DT.App.Lab1App.UXM.
UIElementsTemplates
...empty...

FIG 22

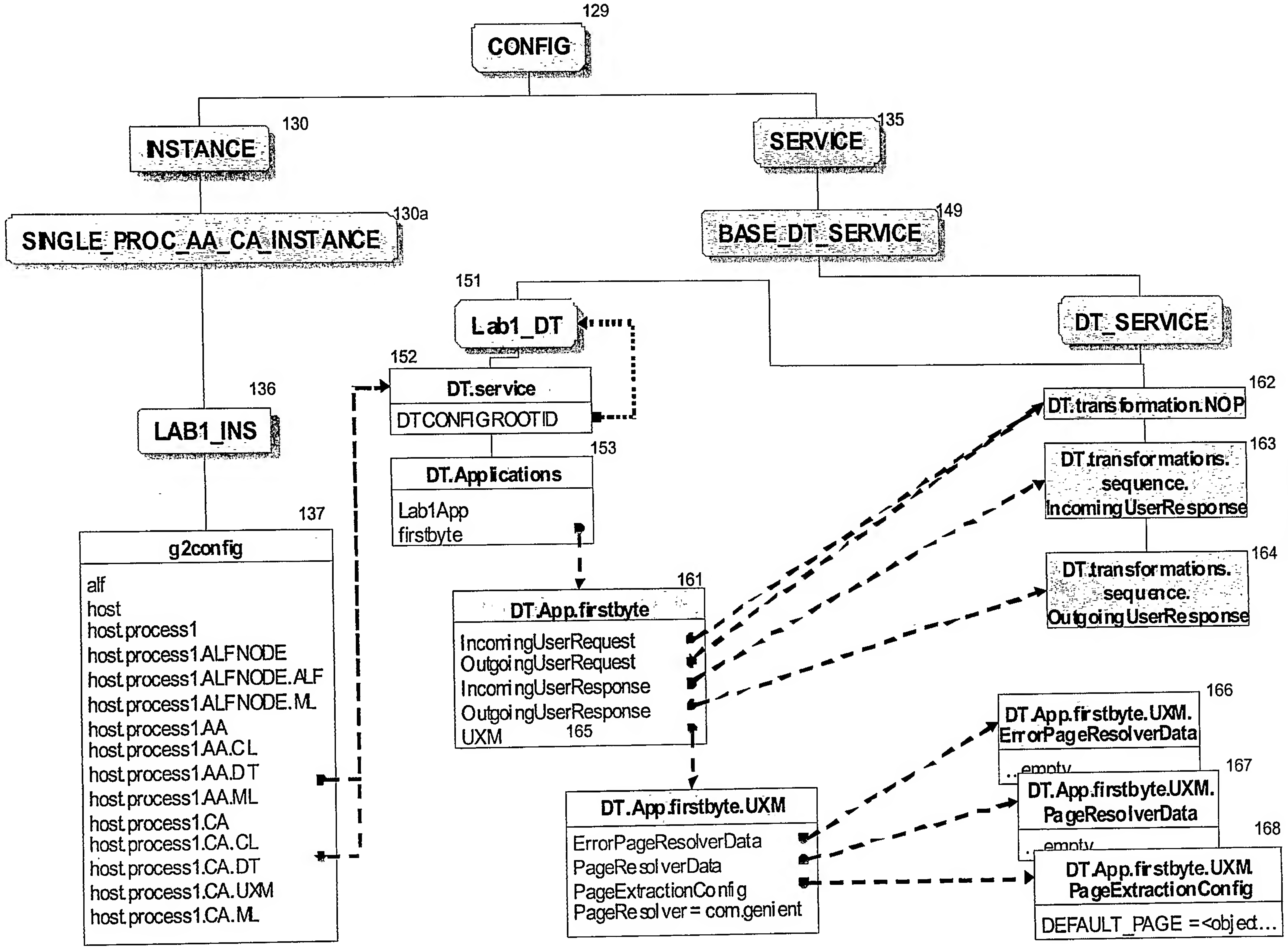

129
CONFIG
130
INSTANCE
135
SERVICE
130a
SINGLE_PROC_AA_CA_INSTANCE
149
BASE_DT_SERVICE
151
Lab1_DT
DT_SERVICE
136
LAB1_INS
152
DT.service
DTCONFIGROOTID
153
DT.Applications
Lab1App
firstbyte
137
g2config
alf
host
host.process1
host.process1.ALFNODE
host.process1.ALFNODE.ALF
host.process1.ALFNODE.ML
host.process1.AA
host.process1.AA.CL
host.process1.AA.DT
host.process1.AA.ML
host.process1.CA
host.process1.CA.CL
host.process1.CA.DT
host.process1.CA.UXM
host.process1.CA.ML
161
DT.App.firstbyte
IncomingUserRequest
OutgoingUserRequest
IncomingUserResponse
OutgoingUserResponse
UXM
165
162
DT.transformation.NOP
163
DT.transformations.
sequence.
IncomingUserResponse
164
DT.transformations.
sequence.
OutgoingUserResponse
DT.App.firstbyte.UXM
ErrorPageResolverData
PageResolverData
PageExtractionConfig
PageResolver = com.genient
166
DT.App.firstbyte.UXM.
ErrorPageResolverData
..empty
167
DT.App.firstbyte.UXM.
PageResolverData
..empty
168
DT.App.firstbyte.UXM.
PageExtractionConfig
DEFAULT_PAGE =<object...

FIG 23

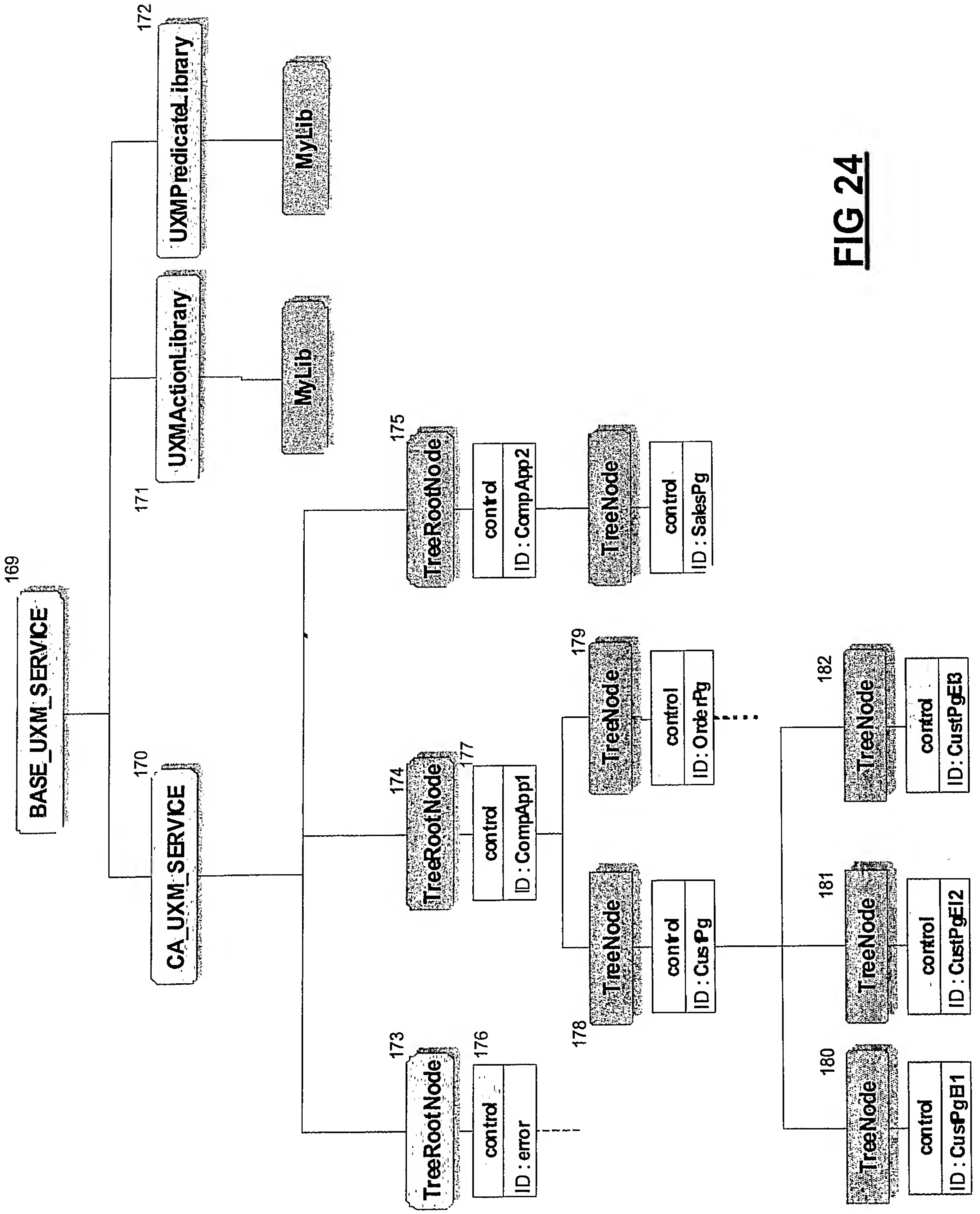

169
BASE_UXM_SERVICE
170
CA_UXM_SERVICE
171
UXMActionLibrary
MyLib
172
UXMPredicateLibrary
MyLib
173
TreeRootNode
176
control
ID : error
174
TreeRootNode
177
control
ID : CompApp1
175
TreeRootNode
control
ID : CompApp2
TreeNode
control
ID : SalesPg
178
TreeNode
control
ID : CustPg
179
TreeNode
control
ID : OrderPg
180
TreeNode
control
ID : CustPgEl1
181
TreeNode
control
ID : CustPgEl2
182
TreeNode
control
ID : CustPgEl3

FIG 24

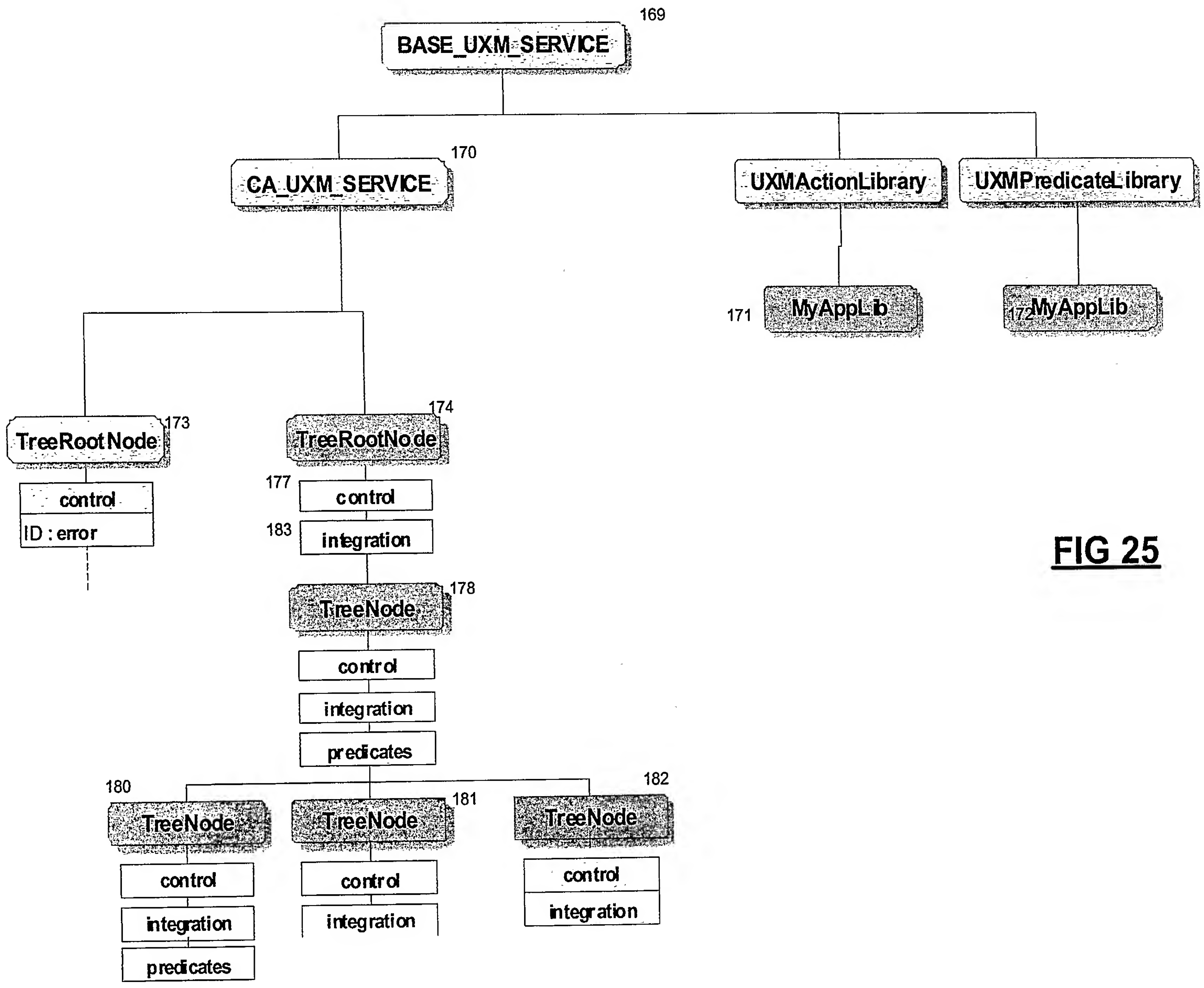

169
BASE_UXM_SERVICE
170
CA_UXM_SERVICE
UXMActionLibrary
UXMPredicateLibrary
171
MyAppLib
172
MyAppLib
173
TreeRootNode
control
ID : error
174
TreeRootNode
177
control
183
integration
178
TreeNode
control
integration
predicates
180
TreeNode
control
integration
predicates
181
TreeNode
control
integration
182
TreeNode
control
integration

FIG 25

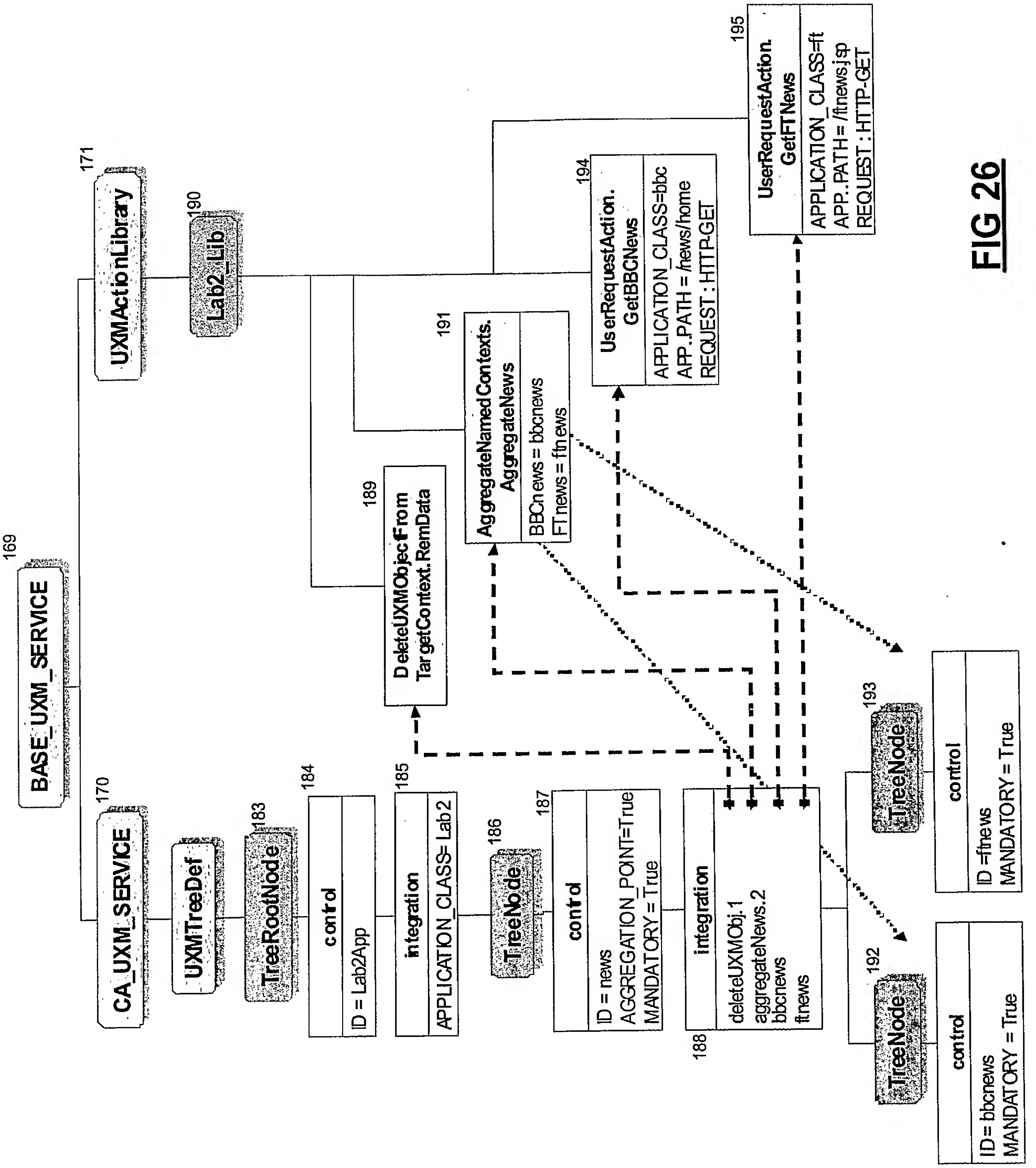
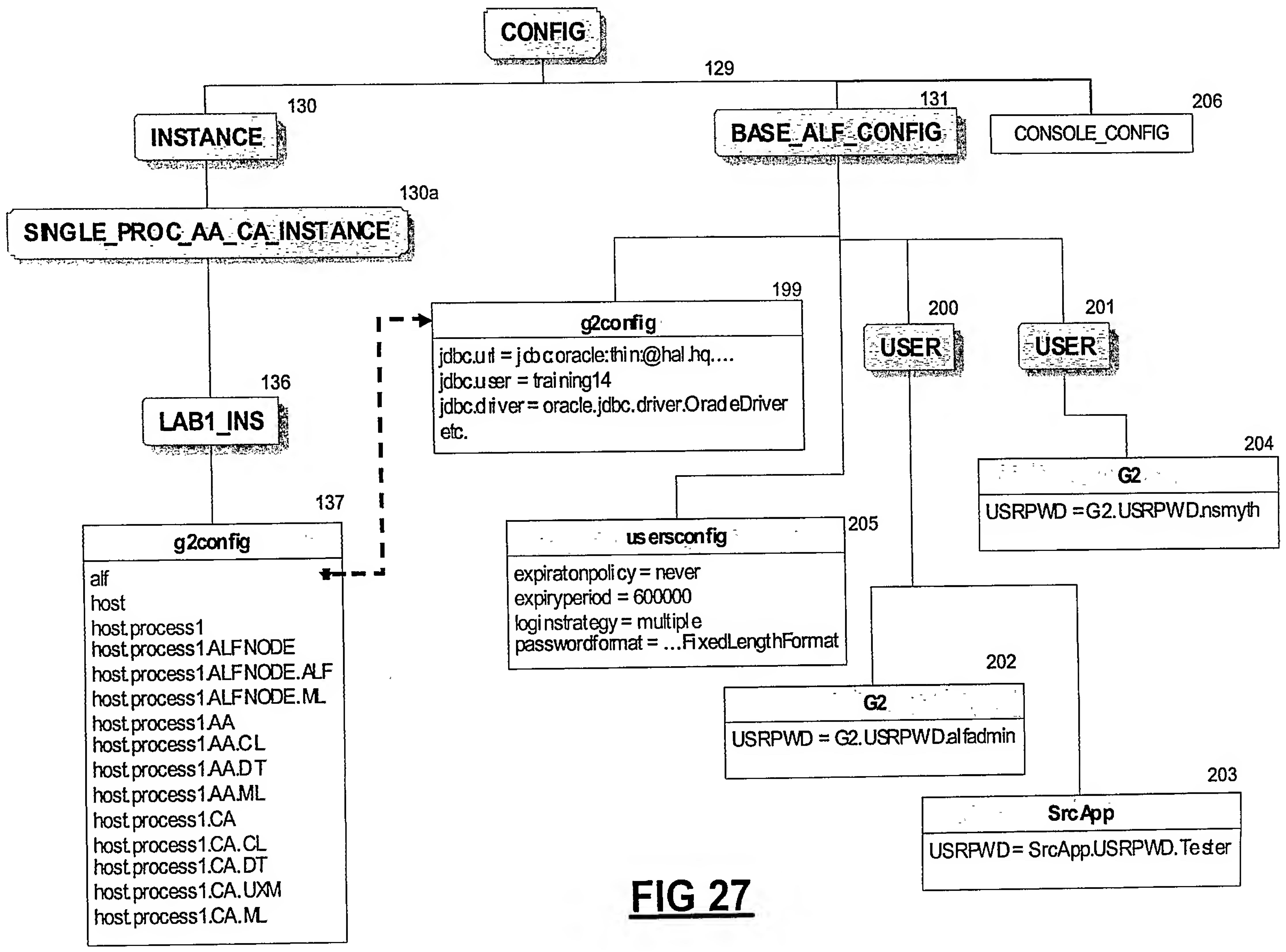

169
BASE_UXM_SERVICE
170
CA_UXM_SERVICE
171
UXMActionLibrary
UXMTreeDef
183
TreeRootNode
184
control
ID = Lab2App
185
integration
APPLICATION_CLASS= Lab2
186
TreeNode
187
control
ID = news
AGGREGATION_POINT=True
MANDATORY = True
188
integration
deleteUXMObj.1
aggregateNews.2
bbcnews
ftnews
192
TreeNode
control
ID= bbcnews
MANDATORY = True
193
TreeNode
control
ID =ftnews
MANDATORY = True
190
Lab2_Lib
189
DeleteUXMObjectFrom
TargetContext.RemData
191
AggregateNamedContexts.
AggregateNews
BBCnews = bbcnews
FTnews = ftnews
194
UserRequestAction.
GetBBCNews
APPLICATION_CLASS=bbc
APP..PATH = /news/home
REQUEST : HTTP-GET
195
UserRequestAction.
GetFTNews
APPLICATION_CLASS=ft
APP..PATH = /ftnews.jsp
REQUEST : HTTP-GET

FIG 26



```
g2config (137)
alf
host
host.process1
host.process1.ALFNODE
host.process1.ALFNODE.ALF
host.process1.ALFNODE.ML
host.process1.AA
host.process1.AA.CL
host.process1.AA.DT
host.process1.AA.ML
host.process1.CA
host.process1.CA.CL
host.process1.CA.DT
host.process1.CA.UXM
host.process1.CA.ML
```

```
g2config (199)
jdbc.url = jdbc:oracle:thin:@hal.hq....
jdbc.user = training14
jdbc.driver = oracle.jdbc.driver.OracleDriver
etc.
```

```
usersconfig (205)
expiratonpolicy = never
expiryperiod = 600000
loginstrategy = multiple
passwordformat = ...FixedLengthFormat
```

```
G2 (204)
USRPWD =G2.USRPWD.nsmyth
```

```
G2 (202)
USRPWD = G2.USRPWD.alfadmin
```

```
SrcApp (203)
USRPWD= SrcApp.USRPWD.Tester
```

FIG 27

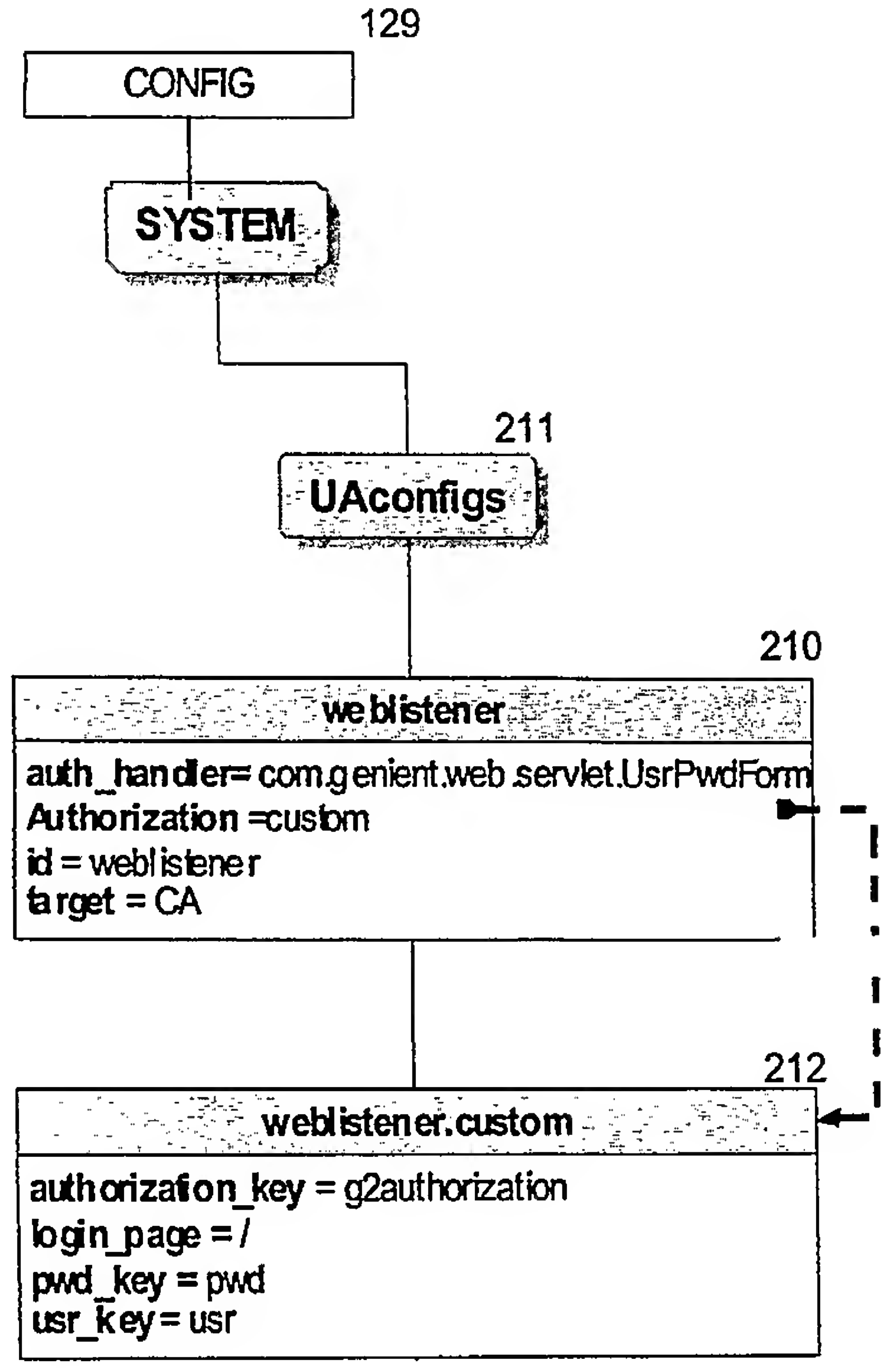


FIG 28

```
[CONFIG]
  [SERVICE]
    [BASE_CL_SERVICE]
      [CA_CL_SERVICE]
        [LAB1_SrcApps]
          <g2config>
            {GRF} firstbyte =
[FirstByteCRM].g2config

      [EXT_APPS]
        [FirstByte]
          <g2config>
            {STR} authorization = false
            {STR} protocol = http
```

FIG 29

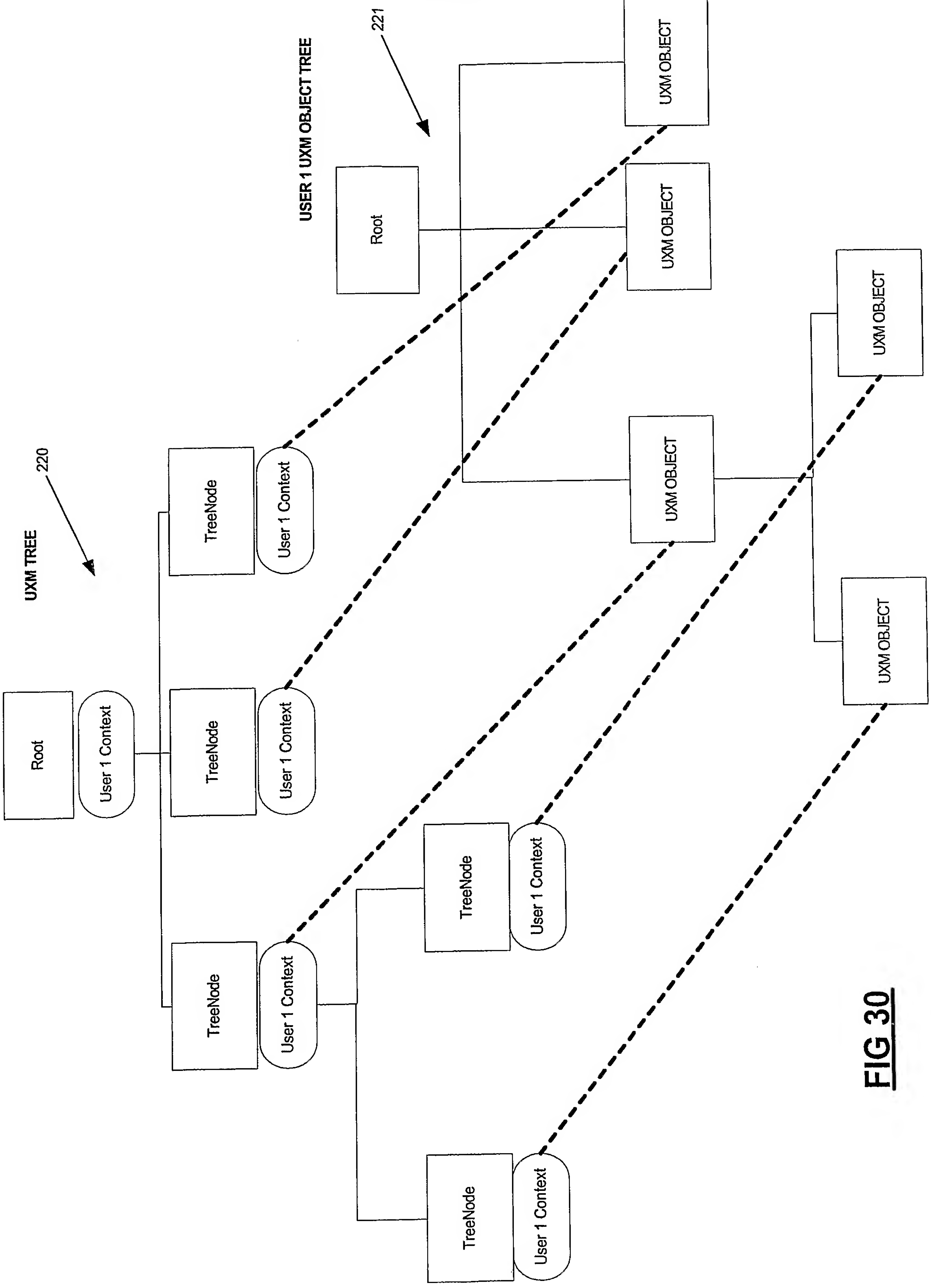

UXM TREE
220
Root
User 1 Context
TreeNode
User 1 Context
TreeNode
User 1 Context
TreeNode
User 1 Context
TreeNode
User 1 Context
TreeNode
User 1 Context
USER 1 UXM OBJECT TREE
221
Root
UXM OBJECT
UXM OBJECT
UXM OBJECT
UXM OBJECT
UXM OBJECT

FIG 30

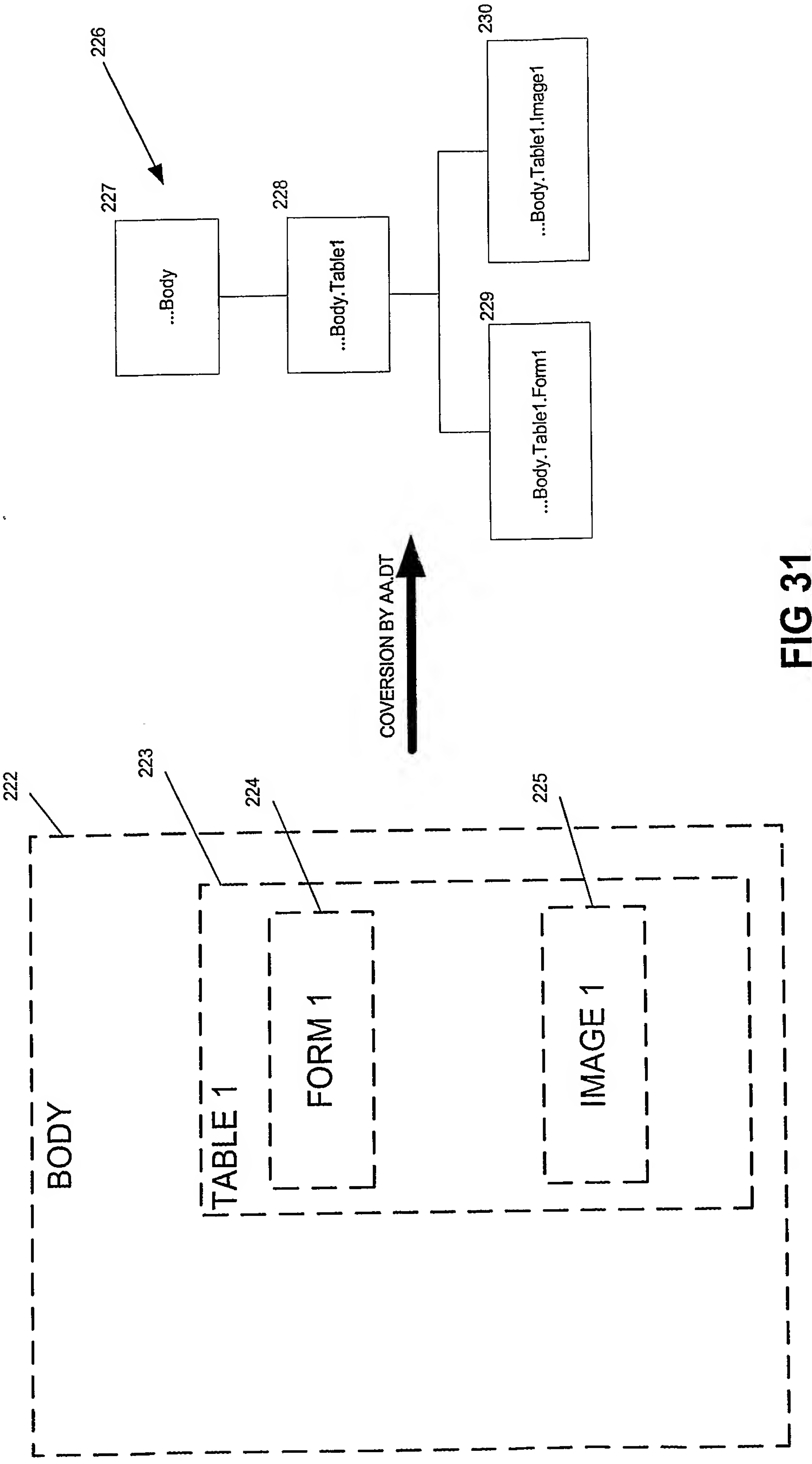

226
227
...Body
228
...Body.Table1
229
...Body.Table1.Form1
230
...Body.Table1.Image1
COVERSION BY AA.DT
222
223
224
225
BODY
TABLE 1
FORM 1
IMAGE 1

FIG 31

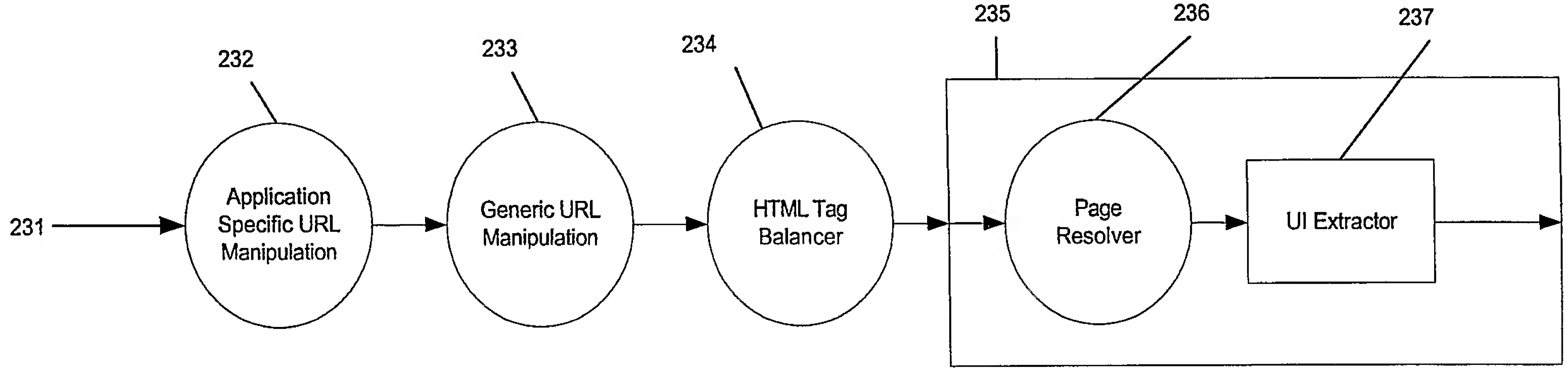

231
232
Application Specific URL Manipulation
233
Generic URL Manipulation
234
HTML Tag Balancer
235
236
Page Resolver
237
UI Extractor

FIG 32

```
<html>
<form action="/G2/G2" method="POST">
<input type="hidden" name="APPLICATION_CLASS" value="Lab1App">
<input type="hidden" name="UXM_MODIFIED" value="true">
<input type="hidden" name="UXM_TREEID" value="Lab1App">
<input type="hidden" name="UXM_NODEID" value="CustPg">
 .....
</html>
```

FIG 33

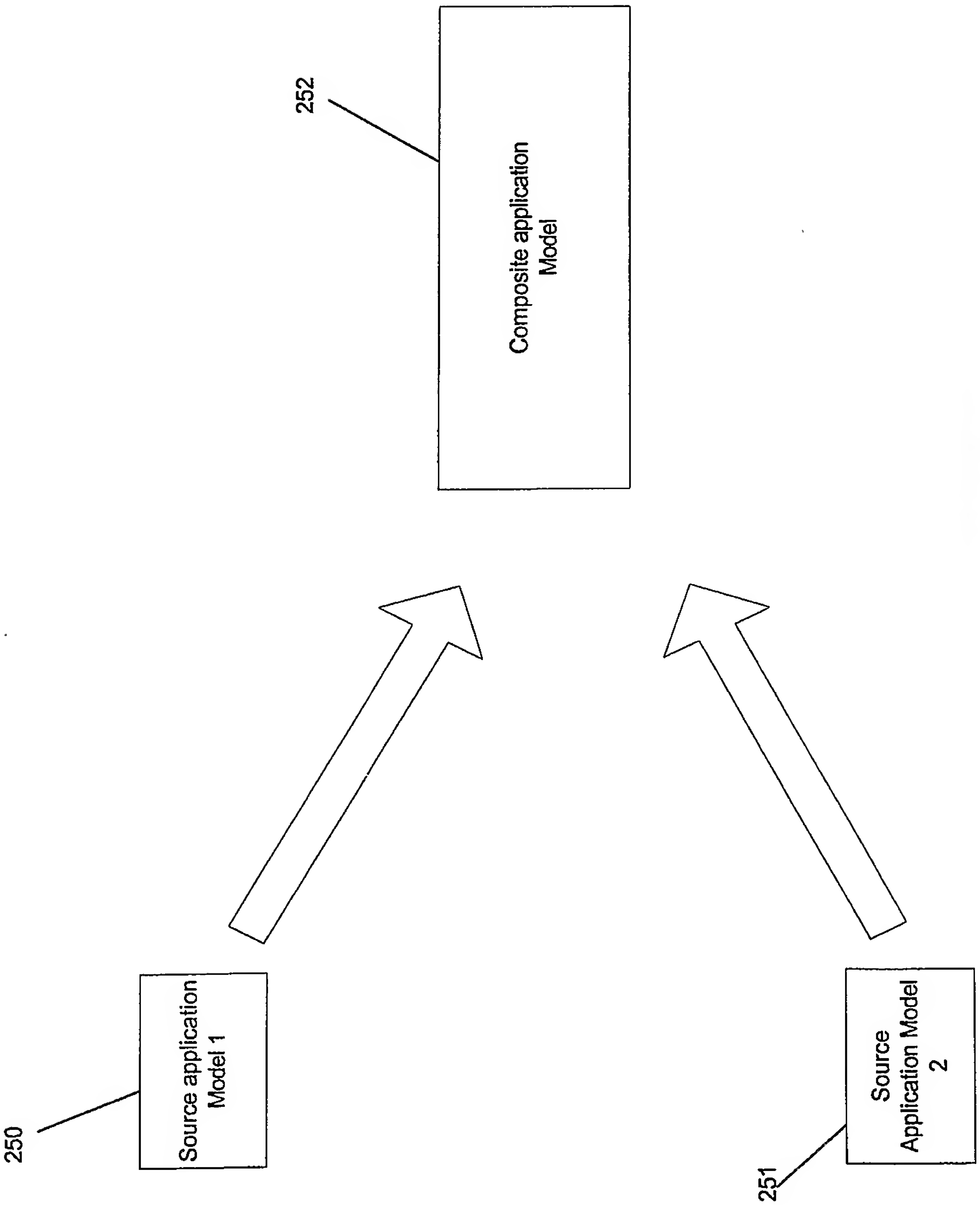

252
Composite application Model
250
Source application Model 1
251
Source Application Model 2

FIG 34

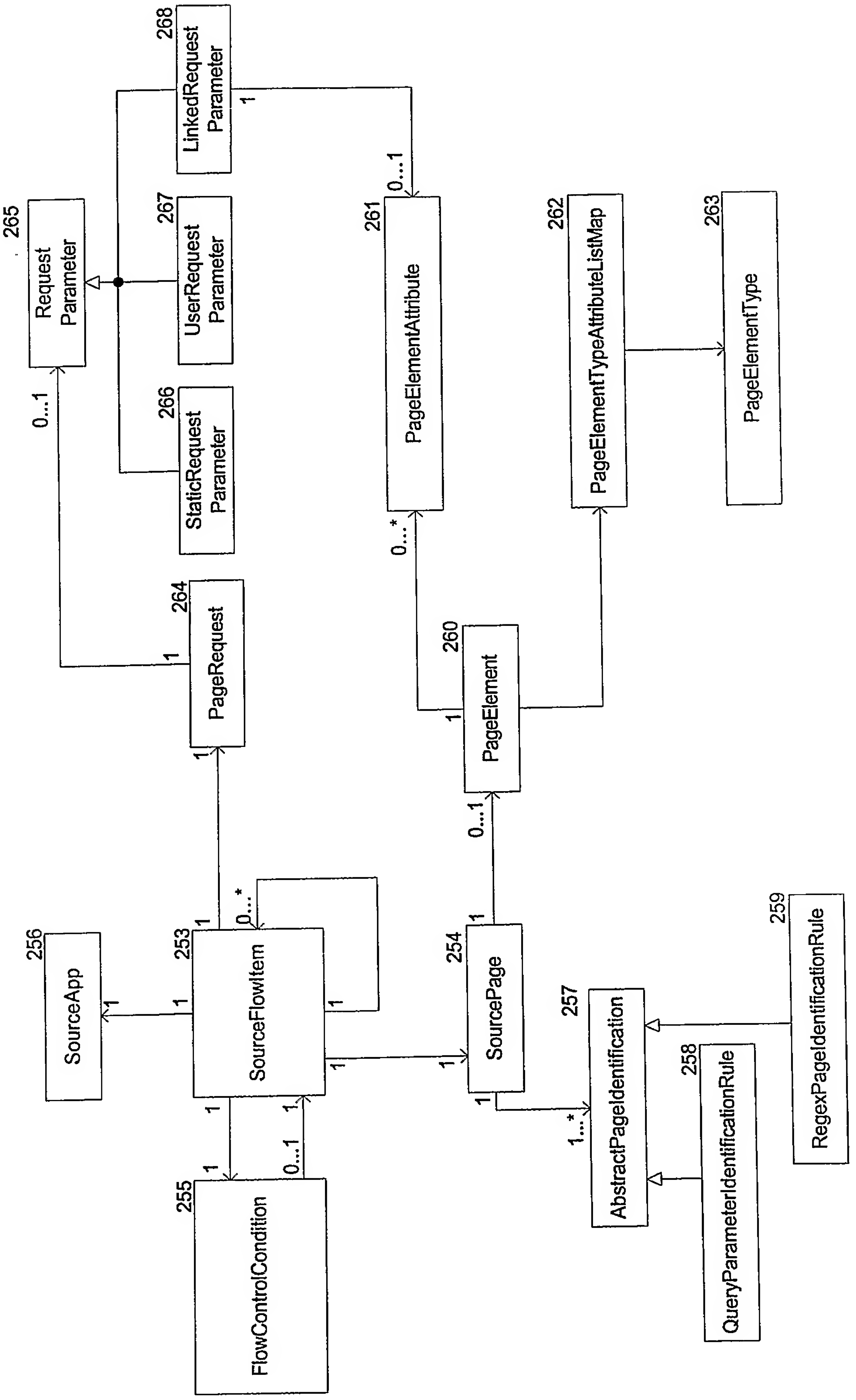

RequestParameter
265
StaticRequestParameter
266
UserRequestParameter
267
LinkedRequestParameter
268
PageRequest
264
PageElementAttribute
261
PageElementTypeAttributeListMap
262
PageElementType
263
PageElement
260
SourceApp
256
SourceFlowItem
253
SourcePage
254
FlowControlCondition
255
AbstractPageIdentification
257
QueryParameterIdentificationRule
258
RegexPageIdentificationRule
259
0...1
1
0...*
1...*

FIG 35

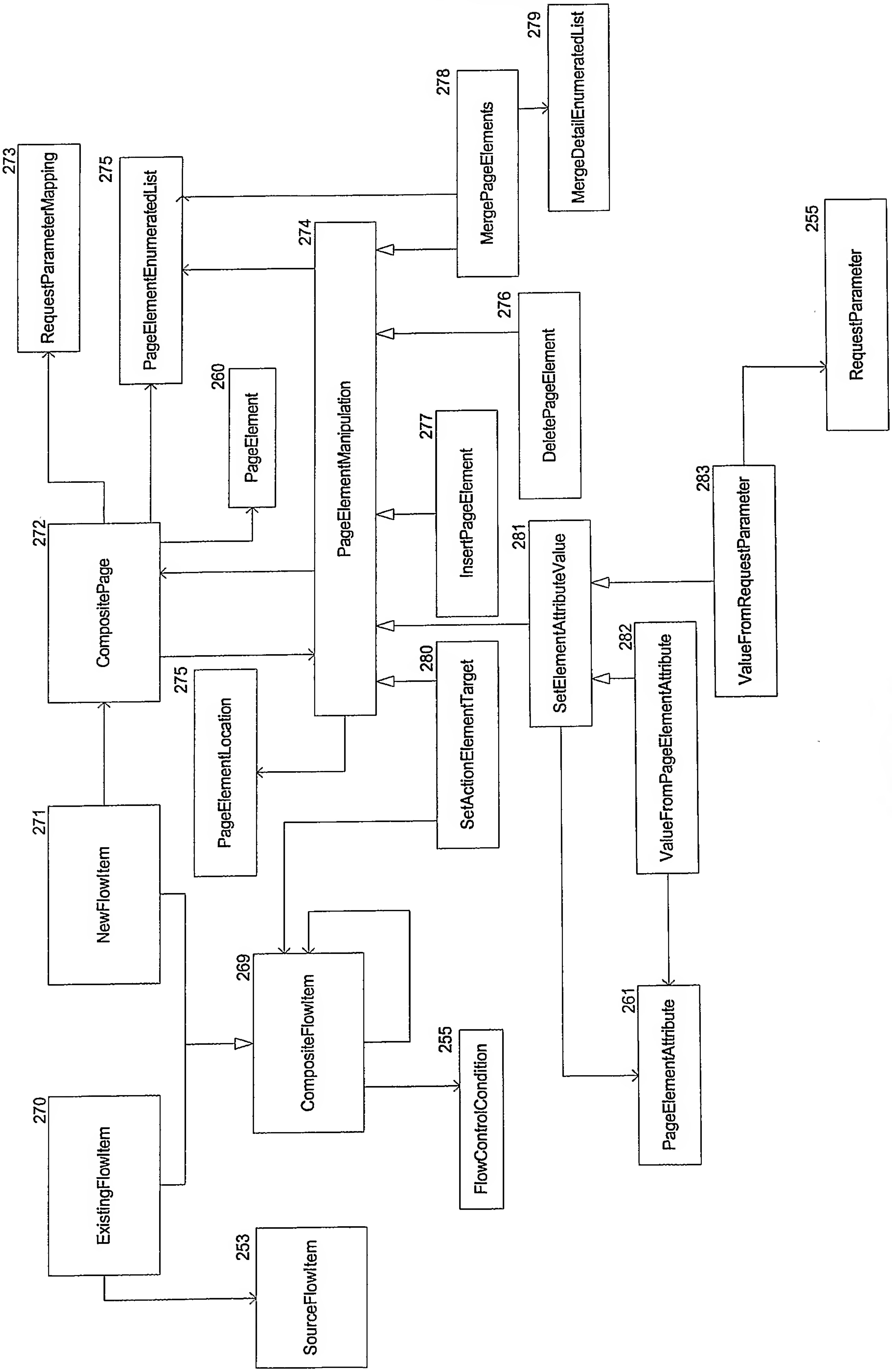

273
RequestParameterMapping
275
PageElementEnumeratedList
278
MergePageElements
279
MergeDetailEnumeratedList
274
PageElementManipulation
260
PageElement
276
DeletePageElement
255
RequestParameter
277
InsertPageElement
272
CompositePage
281
SetElementAttributeValue
283
ValueFromRequestParameter
282
ValueFromPageElementAttribute
275
PageElementLocation
280
SetActionElementTarget
271
NewFlowItem
269
CompositeFlowItem
261
PageElementAttribute
255
FlowControlCondition
270
ExistingFlowItem
253
SourceFlowItem

FIG 36

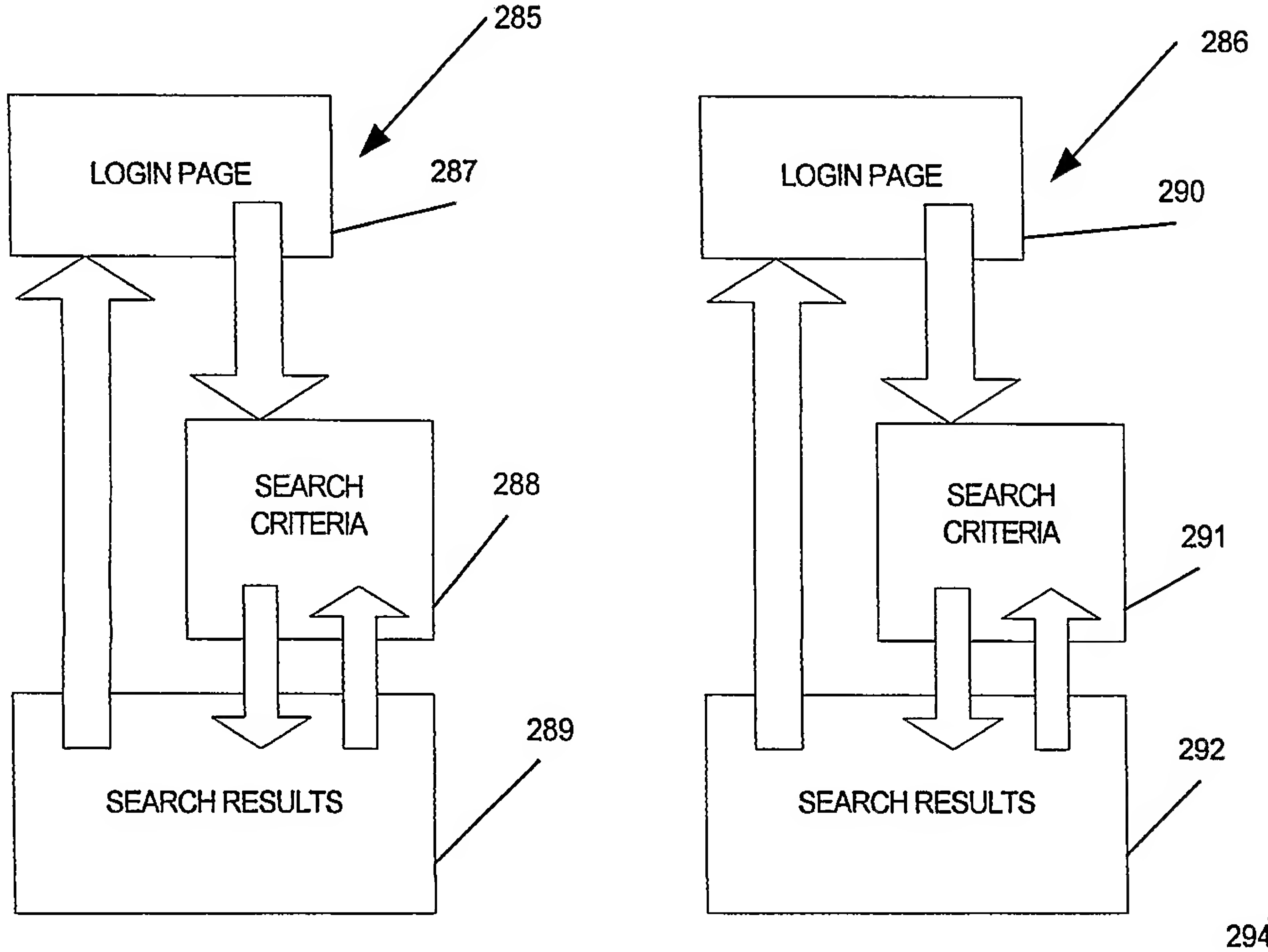


FIG 37A

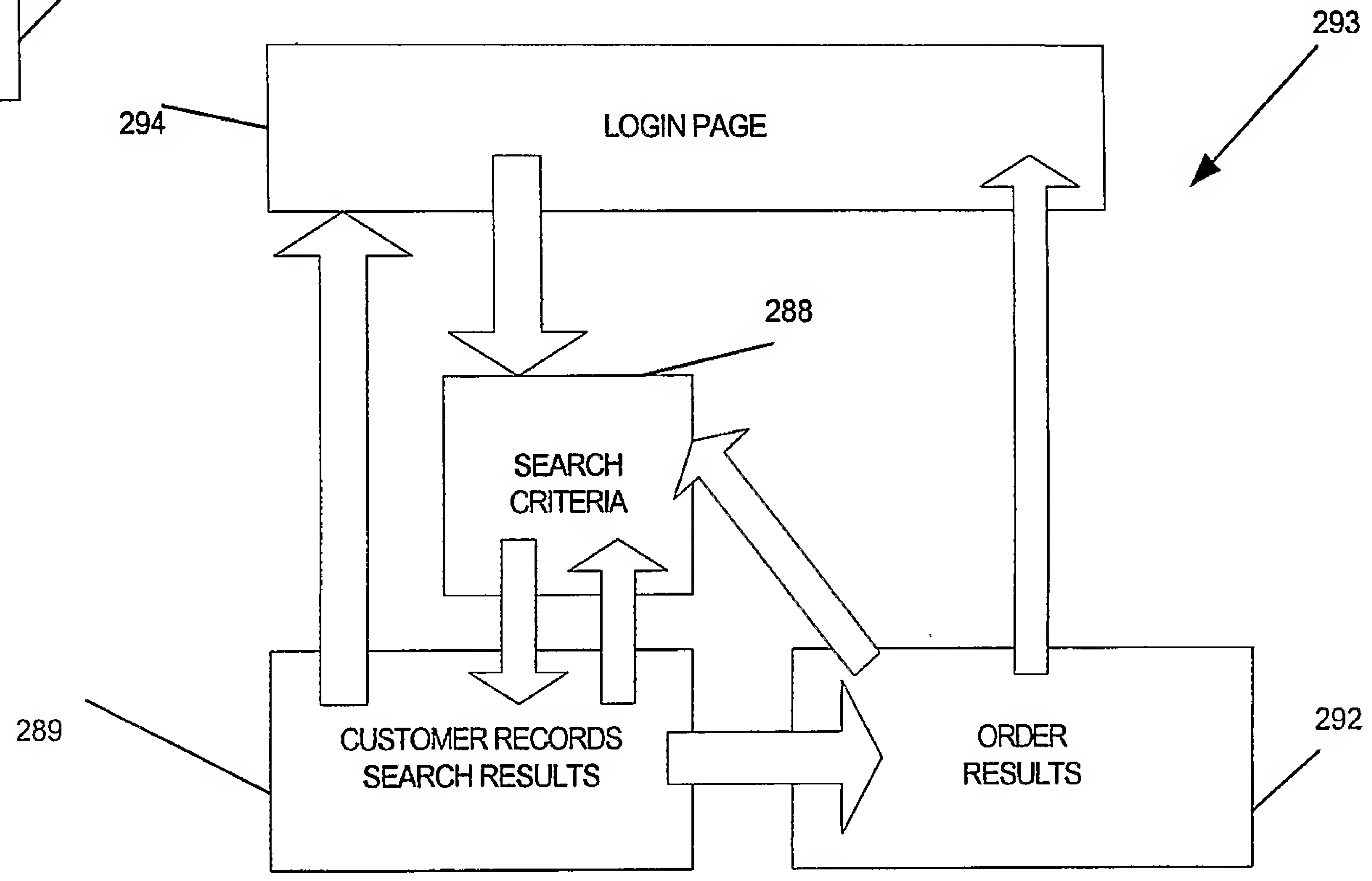
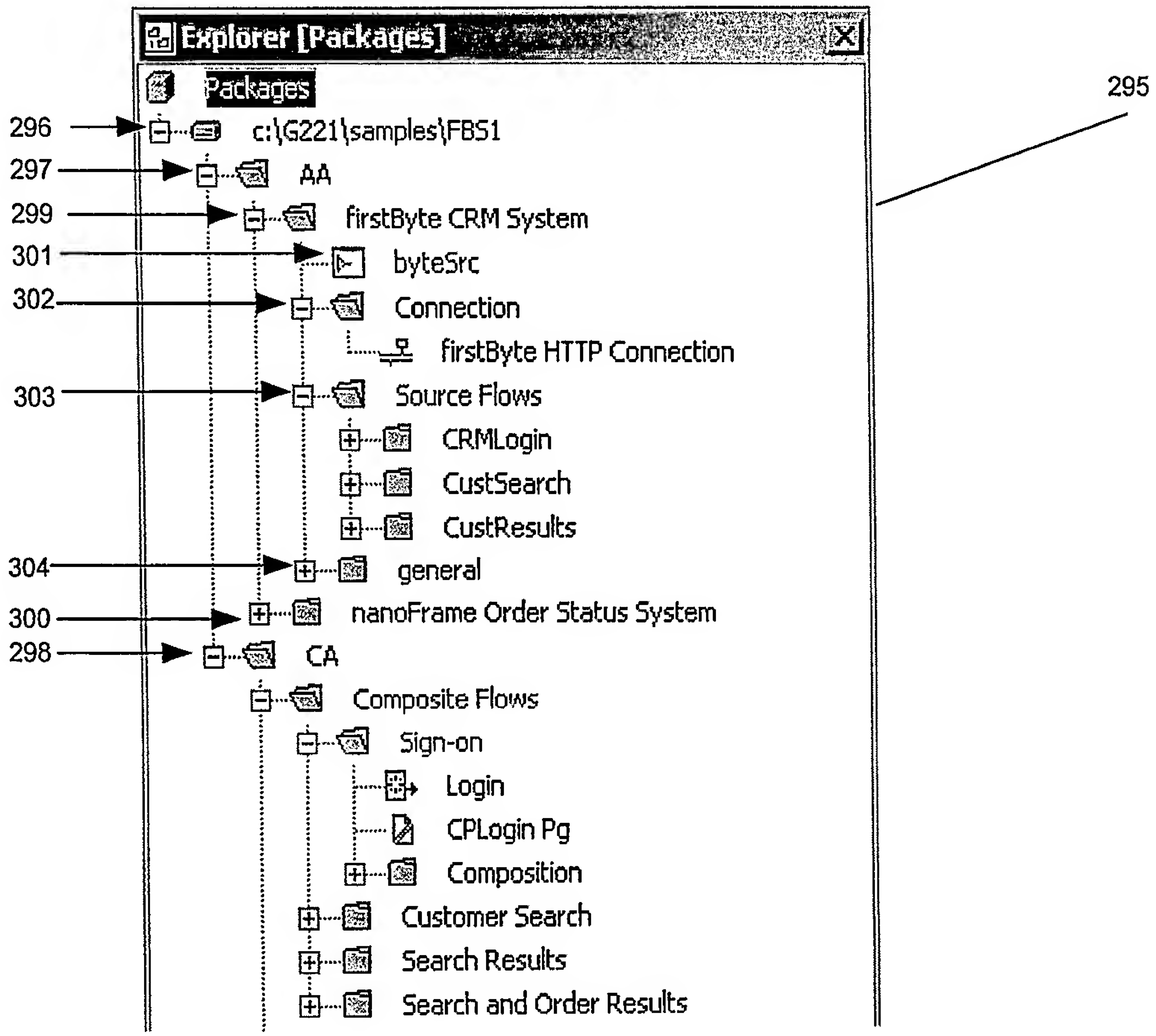


FIG 37B



```
Explorer [Packages]
Packages
c:\G221\samples\FBS1
  AA
    firstByte CRM System
      byteSrc
      Connection
        firstByte HTTP Connection
      Source Flows
        CRMLogin
        CustSearch
        CustResults
      general
    nanoFrame Order Status System
  CA
    Composite Flows
      Sign-on
        Login
        CPLogin Pg
        Composition
      Customer Search
      Search Results
      Search and Order Results
```

FIG 38

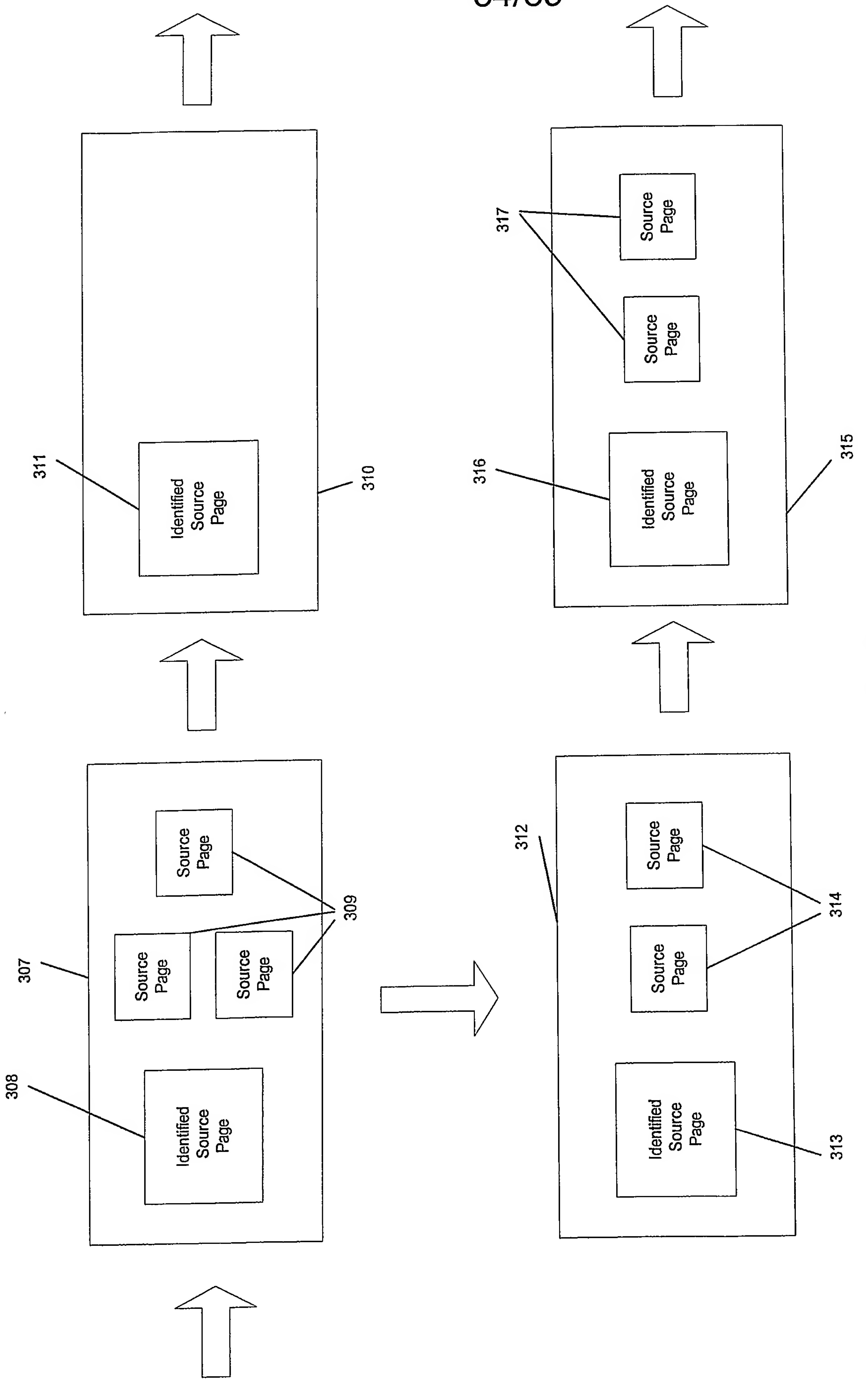

307
308
Identified Source Page
Source Page
Source Page
Source Page
309
310
311
Identified Source Page
312
313
Identified Source Page
Source Page
Source Page
314
315
316
Identified Source Page
Source Page
Source Page
317

FIG 39

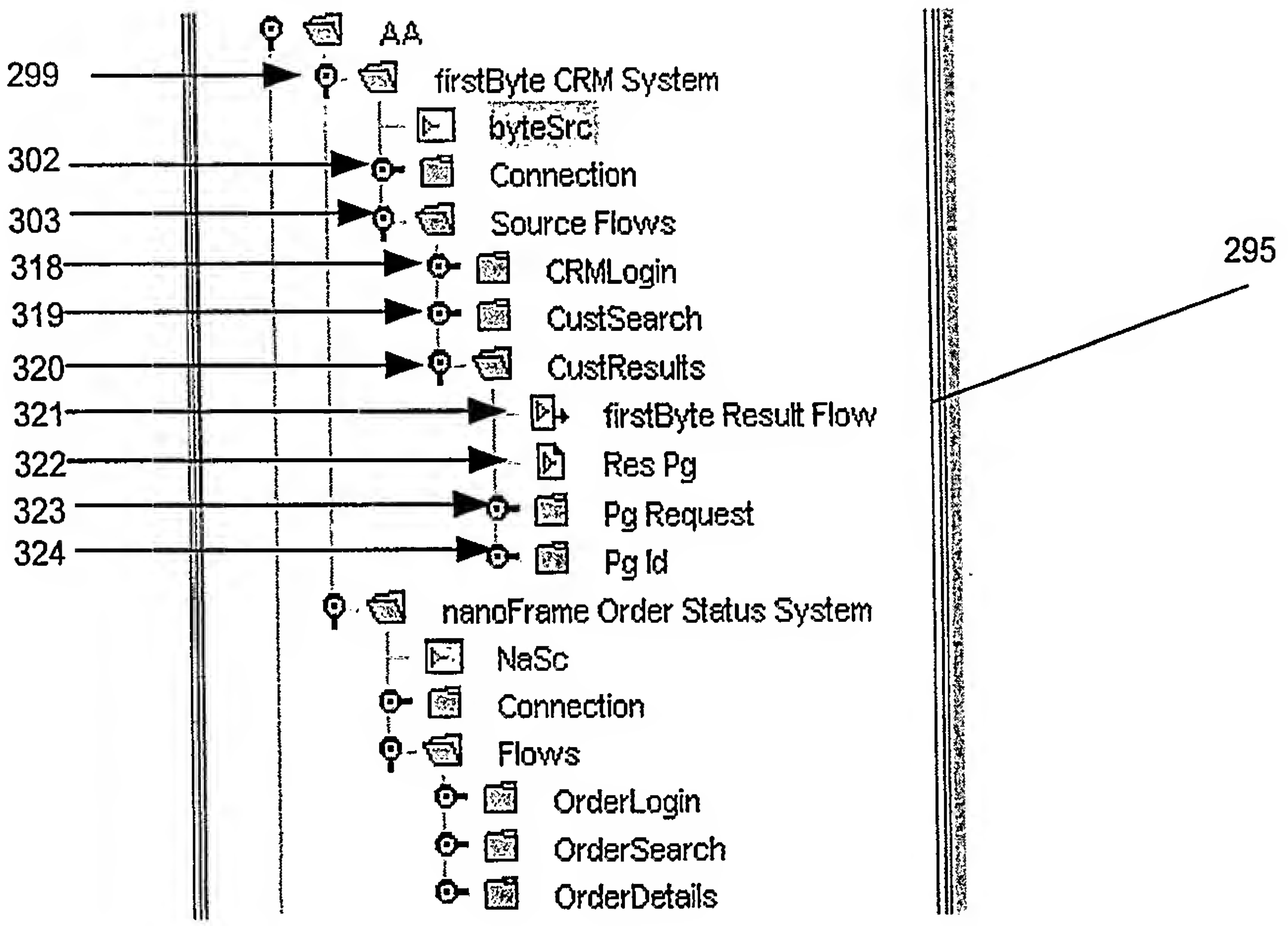
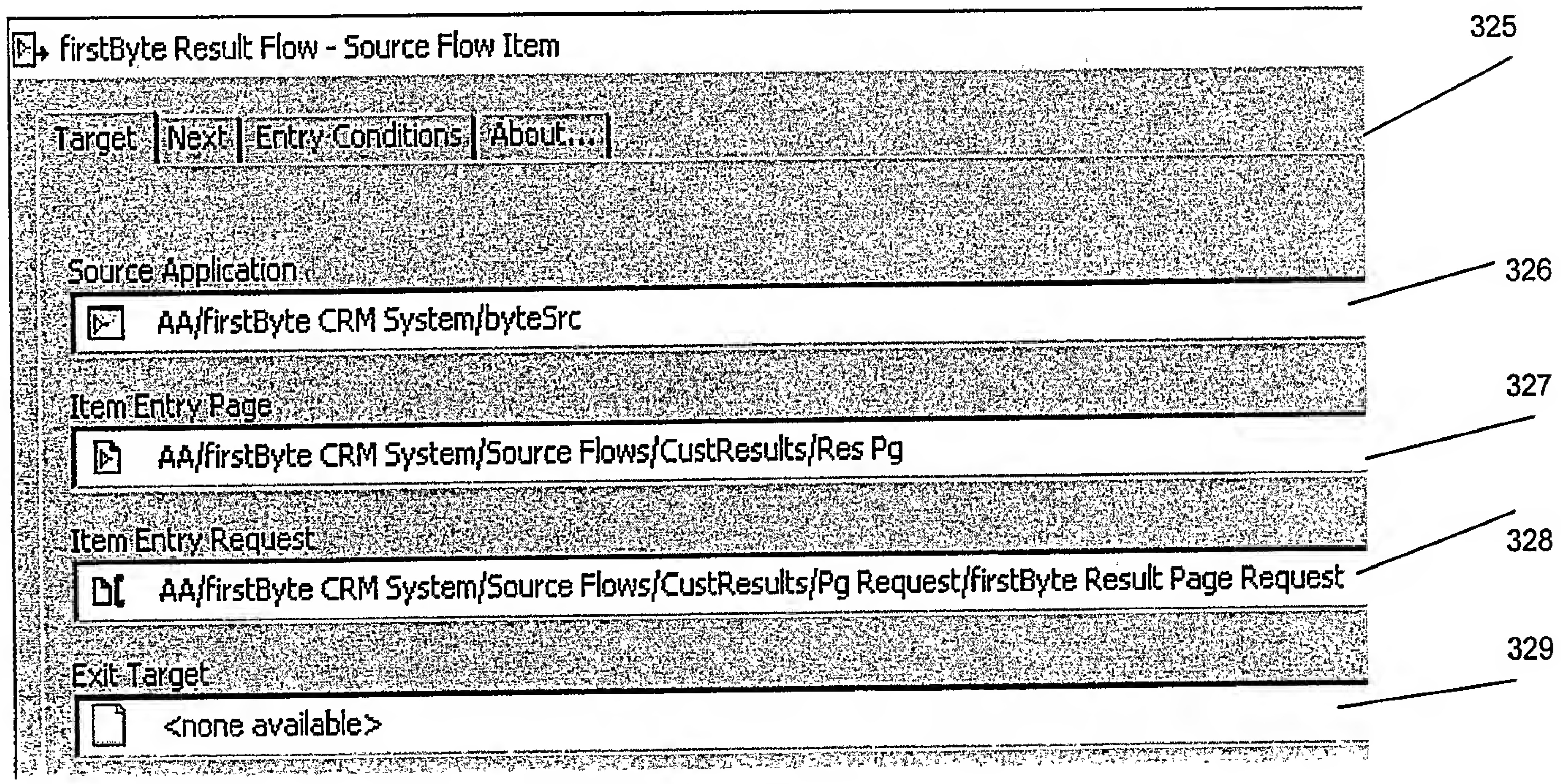


FIG 40


firstByte Result Flow - Source Flow Item

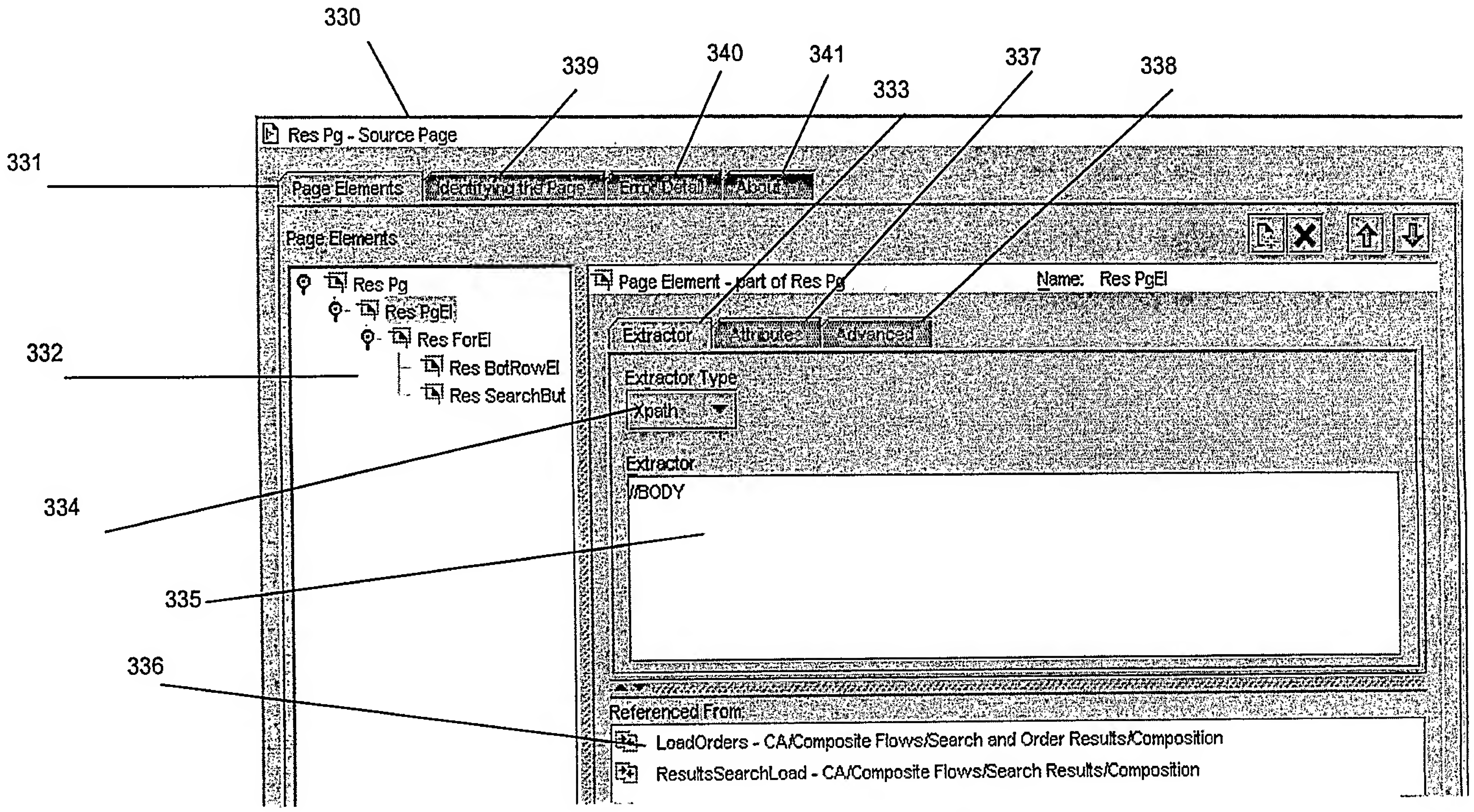
Source Application
AA/firstByte CRM System/byteSrc

Item Entry Page
AA/firstByte CRM System/Source Flows/CustResults/Res Pg

Item Entry Request
AA/firstByte CRM System/Source Flows/CustResults/Pg Request/firstByte Result Page Request

Exit Target
<none available>

FIG 41



Name: Res PgEl

Extractor Type
Xpath

Extractor
//BODY

Referenced From:
LoadOrders - CA/Composite Flows/Search and Order Results/Composition
ResultsSearchLoad - CA/Composite Flows/Search Results/Composition

FIG 42

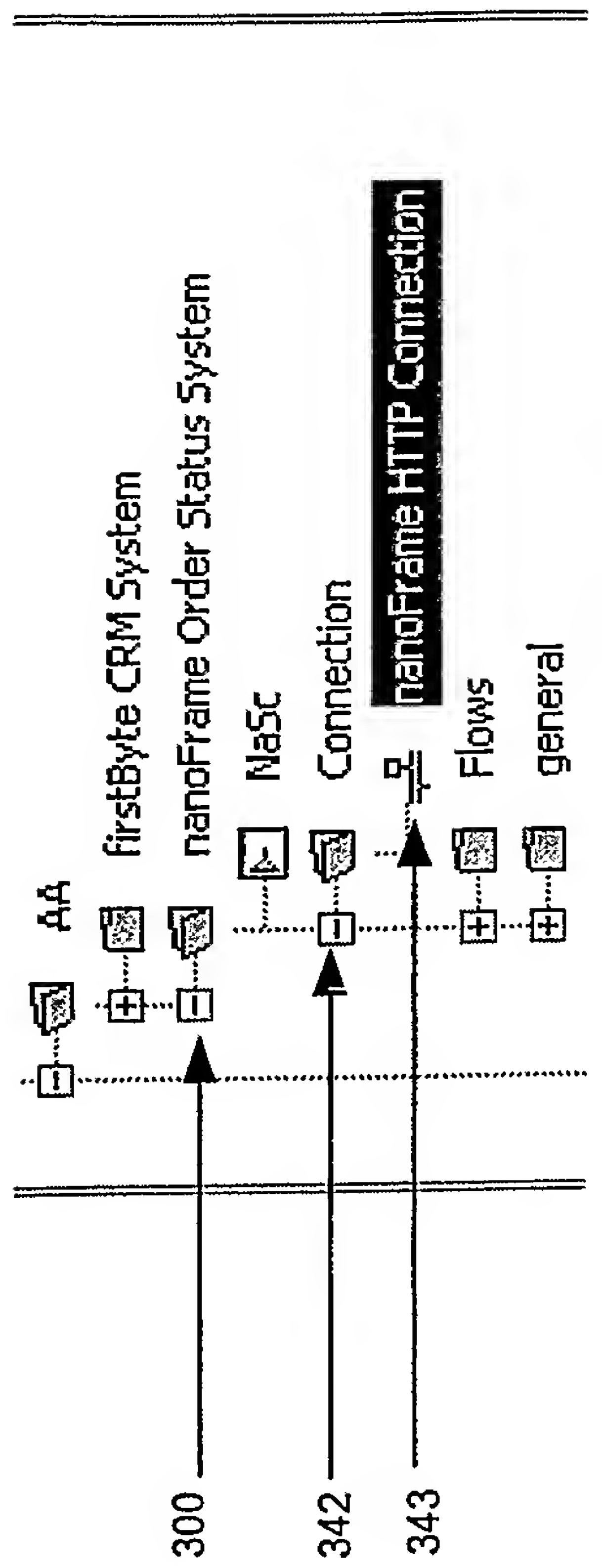
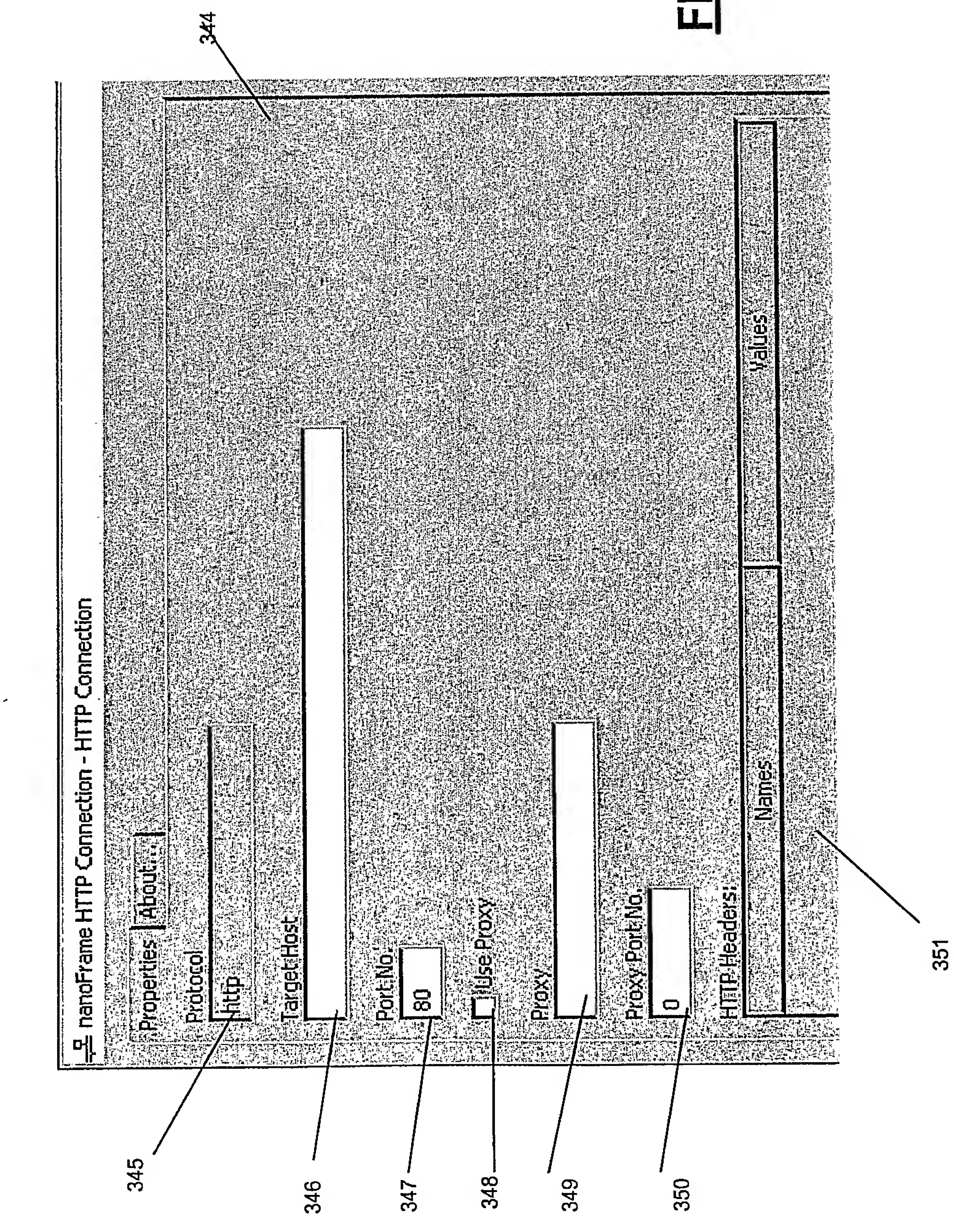


FIG 43



nanoFrame HTTP Connection - HTTP Connection

Properties | About...

Protocol: http

Target Host:

Port No.: 80

□ Use Proxy

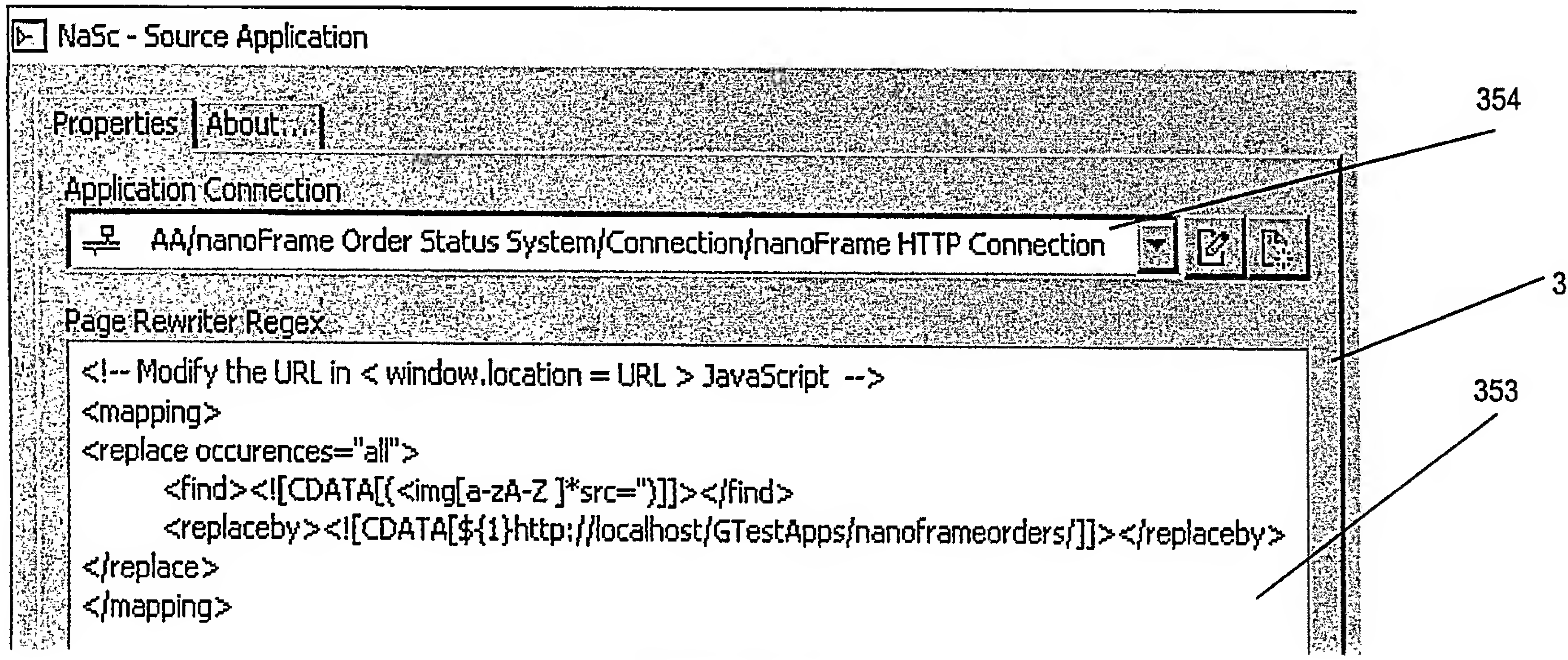
Proxy:

Proxy Port No.: 0

HTTP Headers:

Names	Values

FIG 44

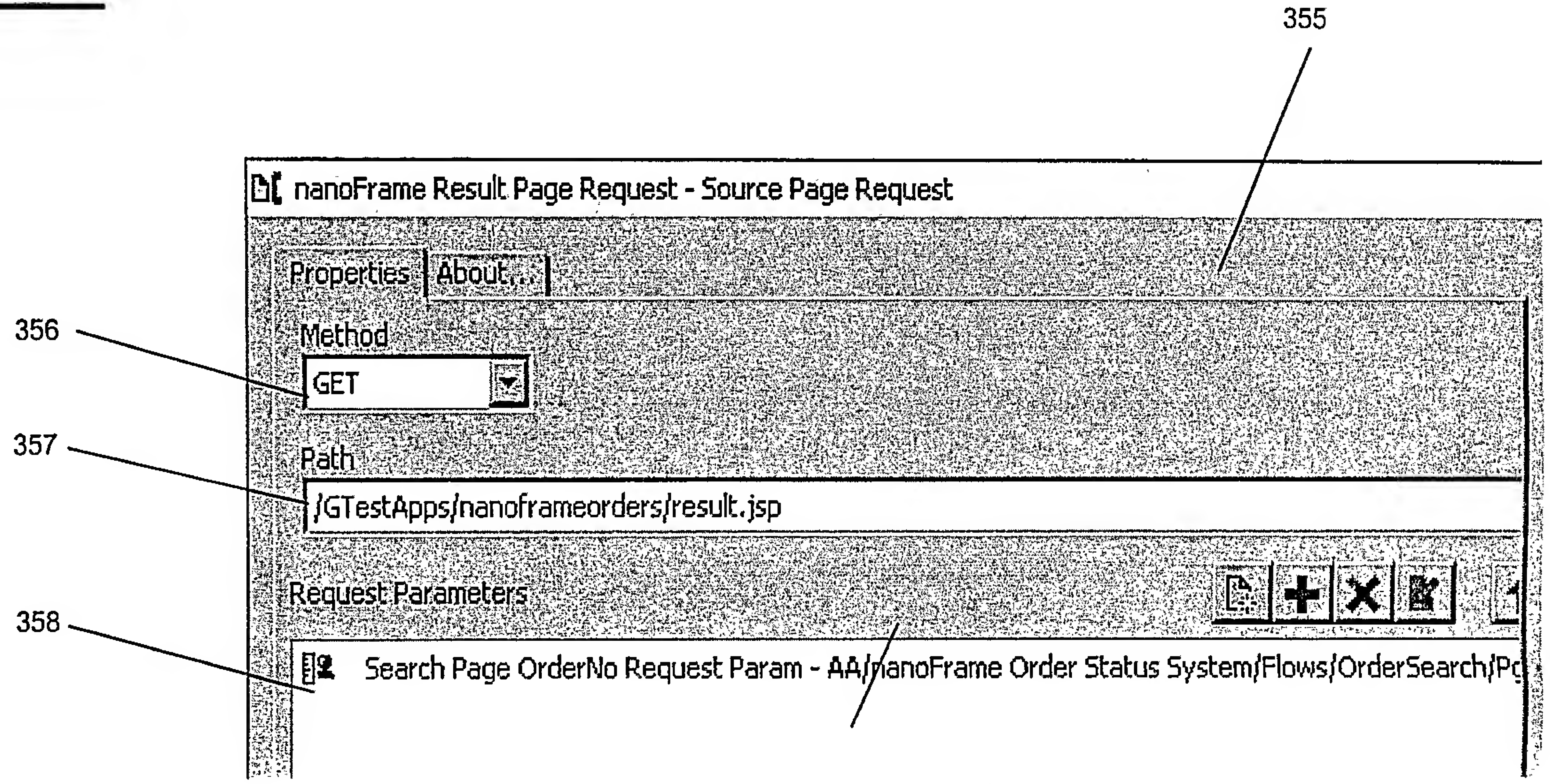


Application Connection: AA/nanoFrame Order Status System/Connection/nanoFrame HTTP Connection

Page Rewriter Regex

```
<!-- Modify the URL in < window.location = URL > JavaScript -->
<mapping>
<replace occurences="all">
        <find><![CDATA[(<img[a-zA-Z ]*src=")]]></find>
        <replaceby><![CDATA[${1}http://localhost/GTestApps/nanoframeorders/]]></replaceby>
</replace>
</mapping>
```

FIG 45



Method: GET

Path: /GTestApps/nanoframeorders/result.jsp

Request Parameters

Search Page OrderNo Request Param - AA/nanoFrame Order Status System/Flows/OrderSearch/Pg

FIG 46

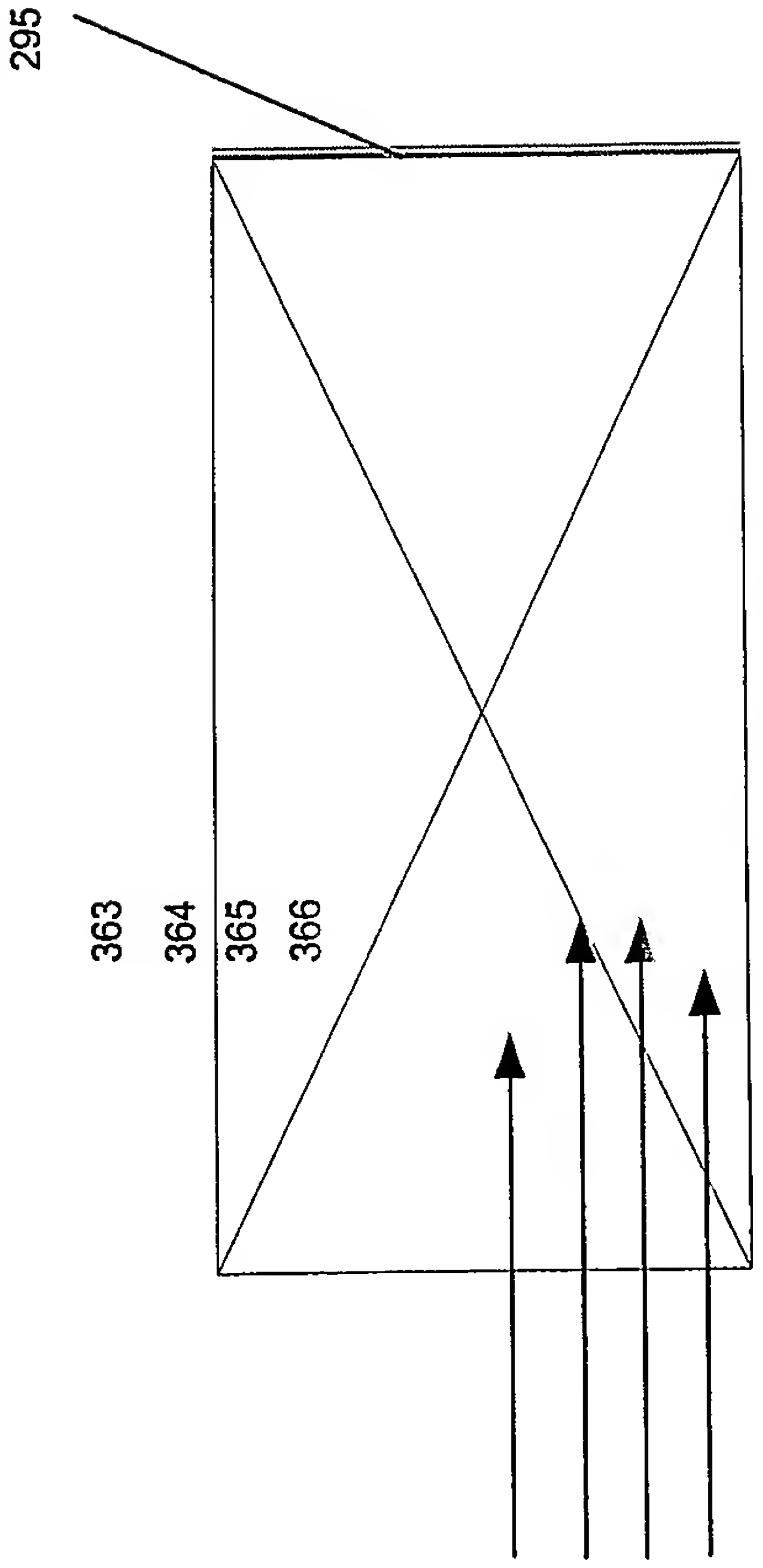


FIG 48

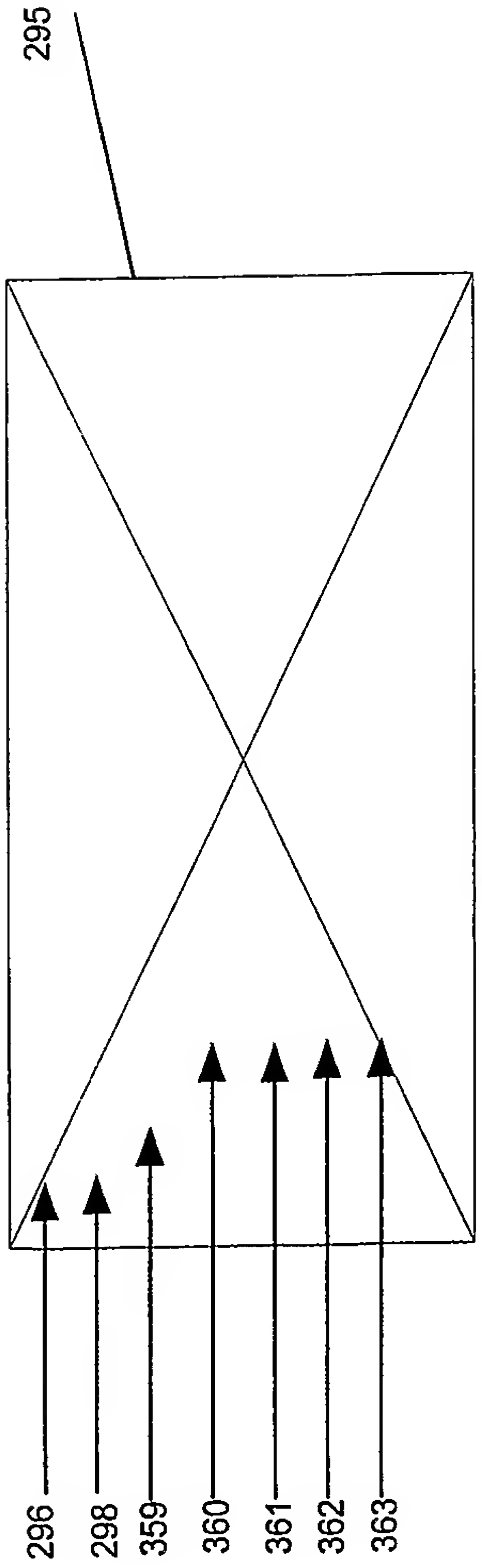
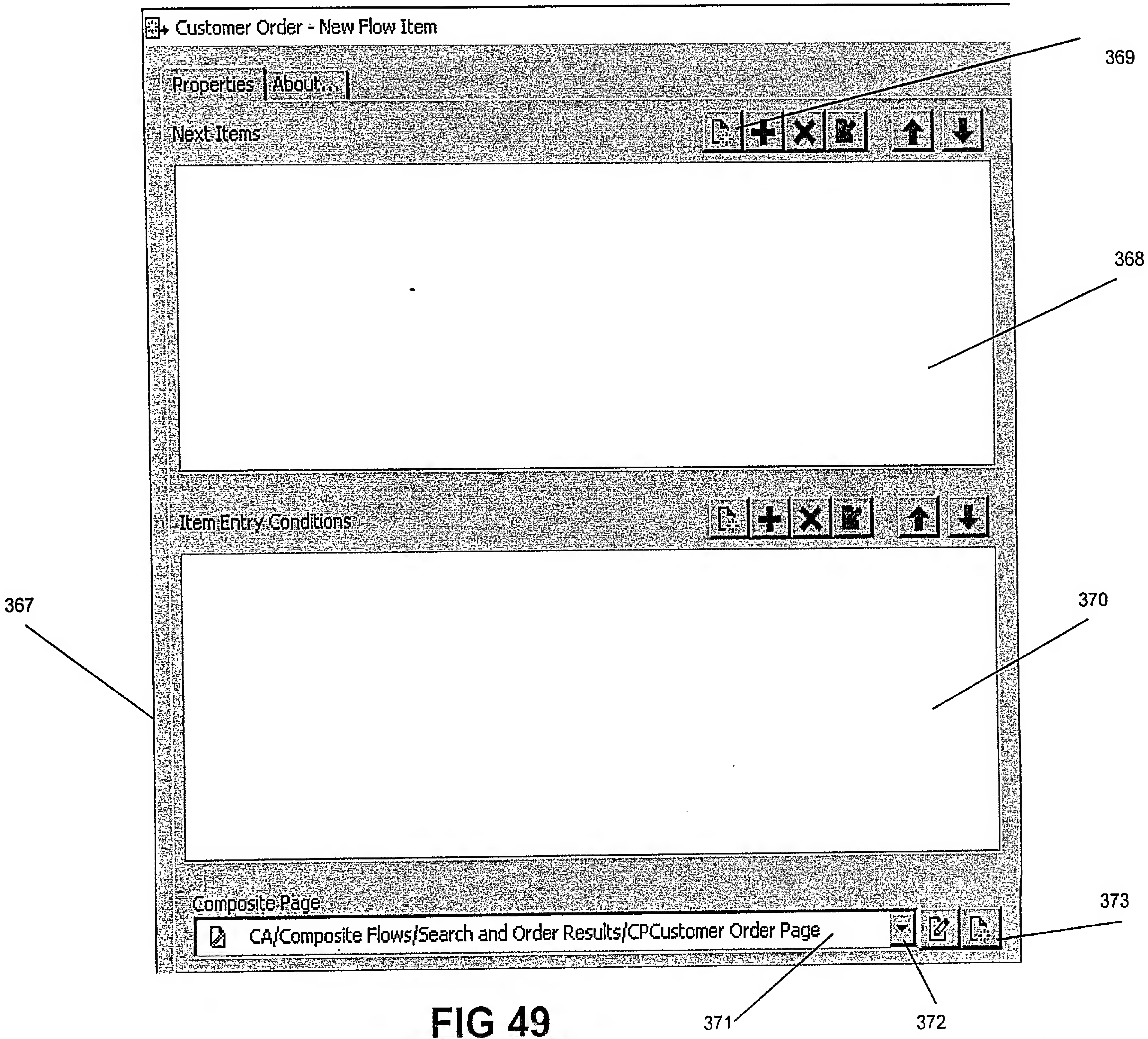


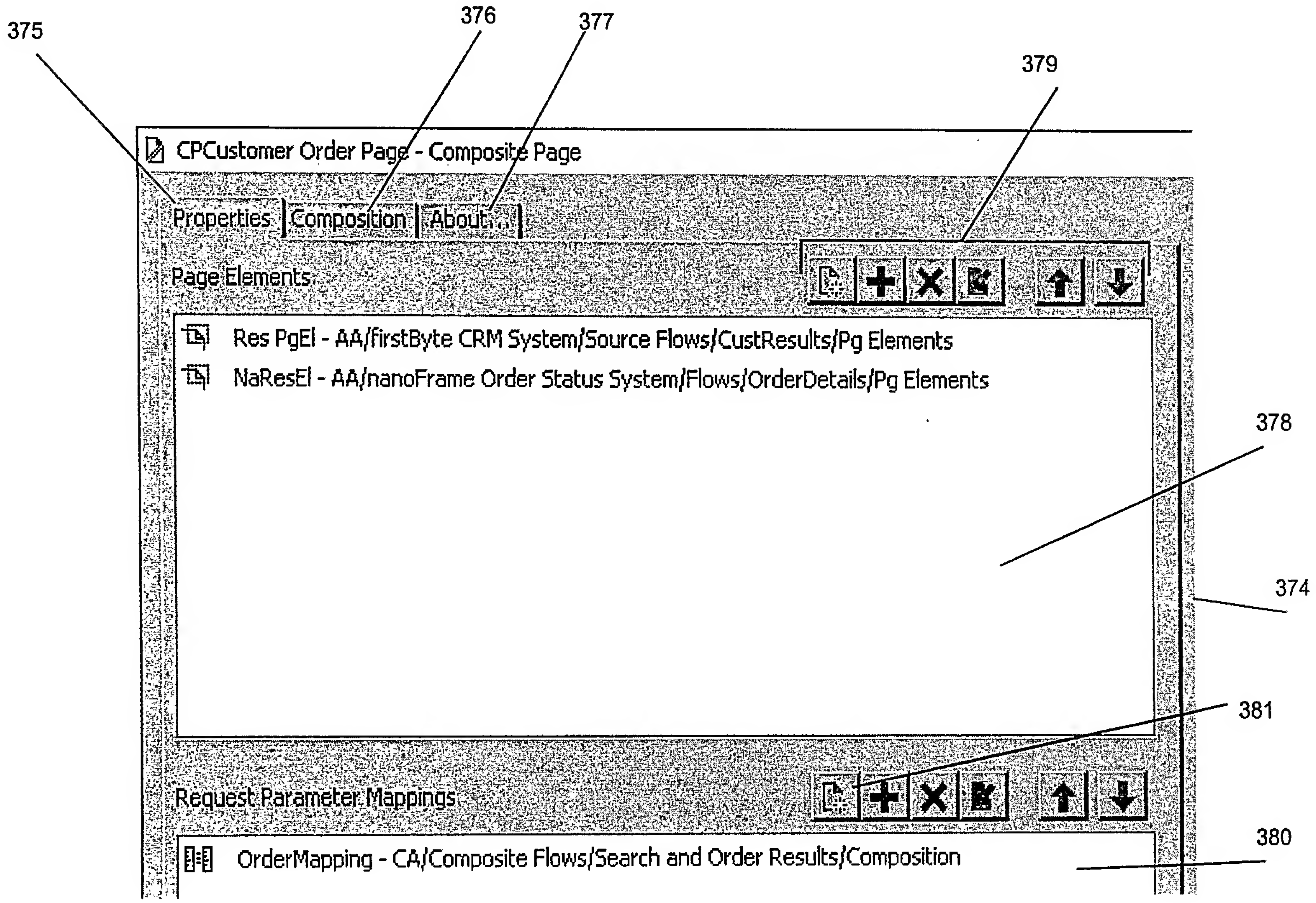
FIG 47



Customer Order - New Flow Item

Composite Page: CA/Composite Flows/Search and Order Results/CPCustomer Order Page

FIG 49



CPCustomer Order Page - Composite Page

Page Elements

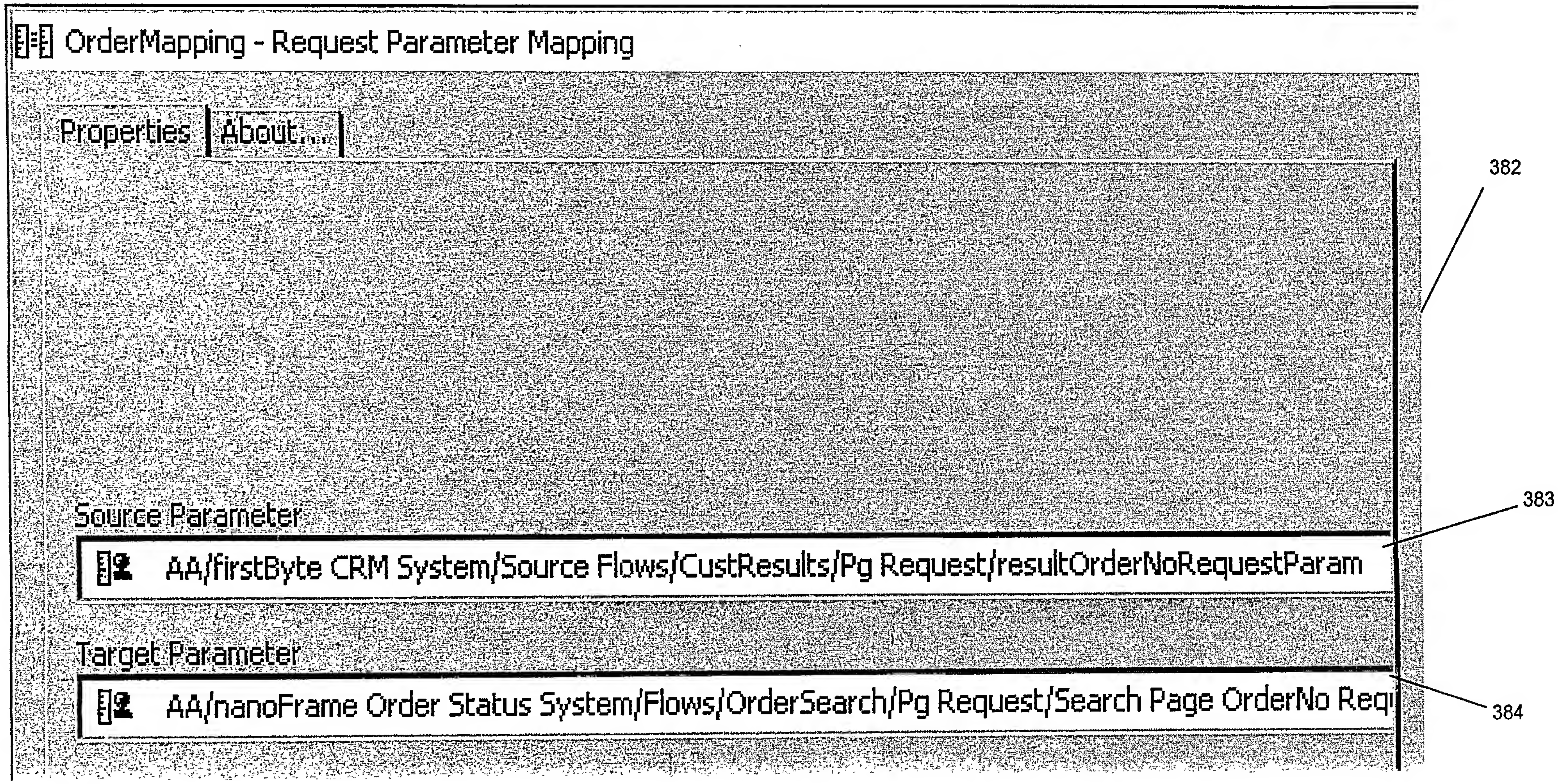
Res PgEl - AA/firstByte CRM System/Source Flows/CustResults/Pg Elements

NaResEl - AA/nanoFrame Order Status System/Flows/OrderDetails/Pg Elements

Request Parameter Mappings

OrderMapping - CA/Composite Flows/Search and Order Results/Composition

FIG 50



OrderMapping - Request Parameter Mapping

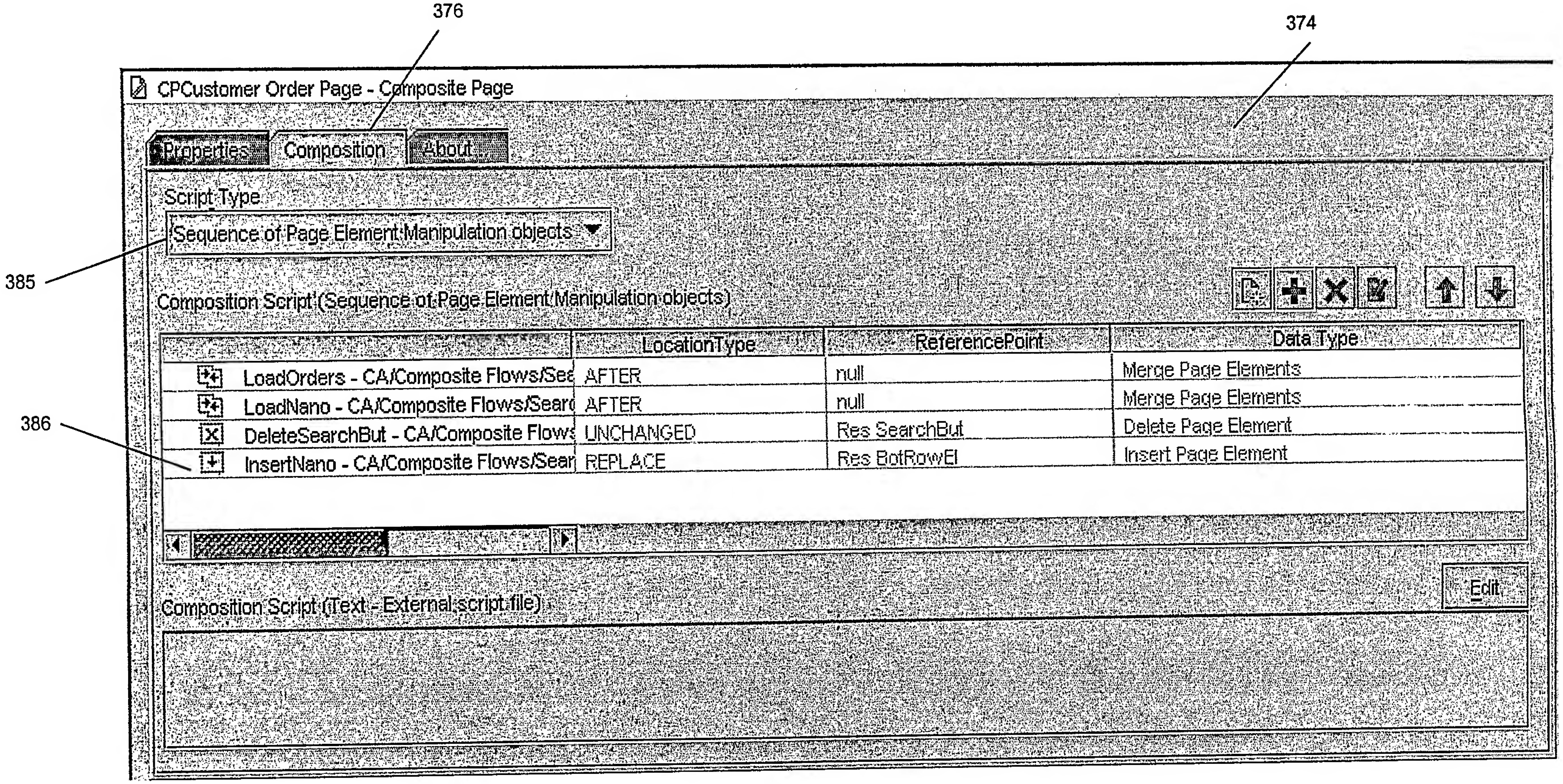
Source Parameter

AA/firstByte CRM System/Source Flows/CustResults/Pg Request/resultOrderNoRequestParam

Target Parameter

AA/nanoFrame Order Status System/Flows/OrderSearch/Pg Request/Search Page OrderNo Req

FIG 51



CPCustomer Order Page - Composite Page

Script Type

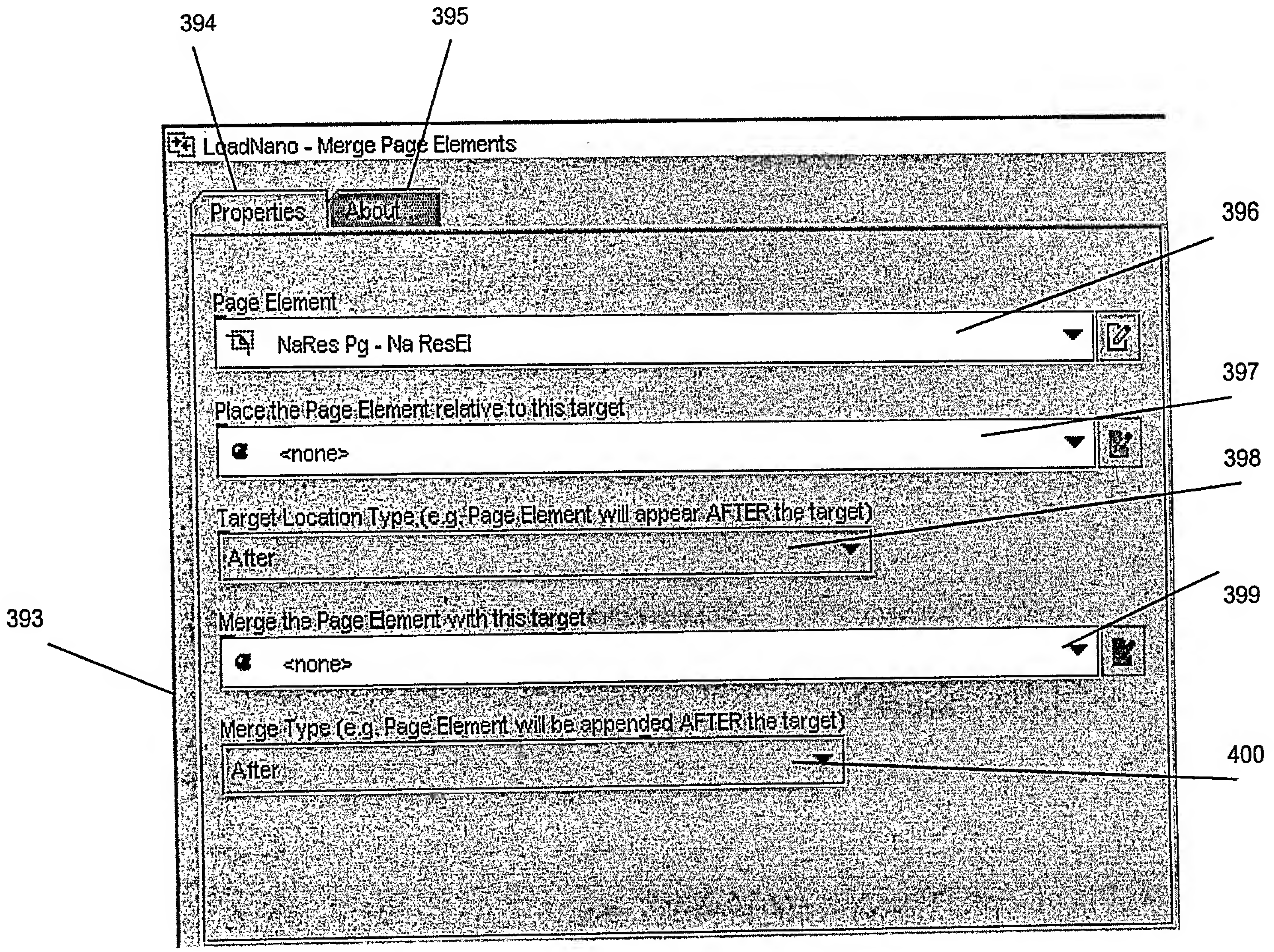
Sequence of Page Element Manipulation objects

Composition Script (Sequence of Page Element Manipulation objects)

	LocationType	ReferencePoint	Data Type
LoadOrders - CA/Composite Flows/Sea	AFTER	null	Merge Page Elements
LoadNano - CA/Composite Flows/Searc	AFTER	null	Merge Page Elements
☒ DeleteSearchBut - CA/Composite Flows	UNCHANGED	Res SearchBut	Delete Page Element
InsertNano - CA/Composite Flows/Sear	REPLACE	Res BotRowEl	Insert Page Element

Composition Script (Text - External script file)

FIG 52



LoadNano - Merge Page Elements

Properties
About

Page Element
NaRes Pg - Na ResEl

Place the Page Element relative to this target
<none>

Target Location Type (e.g. Page Element will appear AFTER the target)
After

Merge the Page Element with this target
<none>

Merge Type (e.g. Page Element will be appended AFTER the target)
After

FIG 54

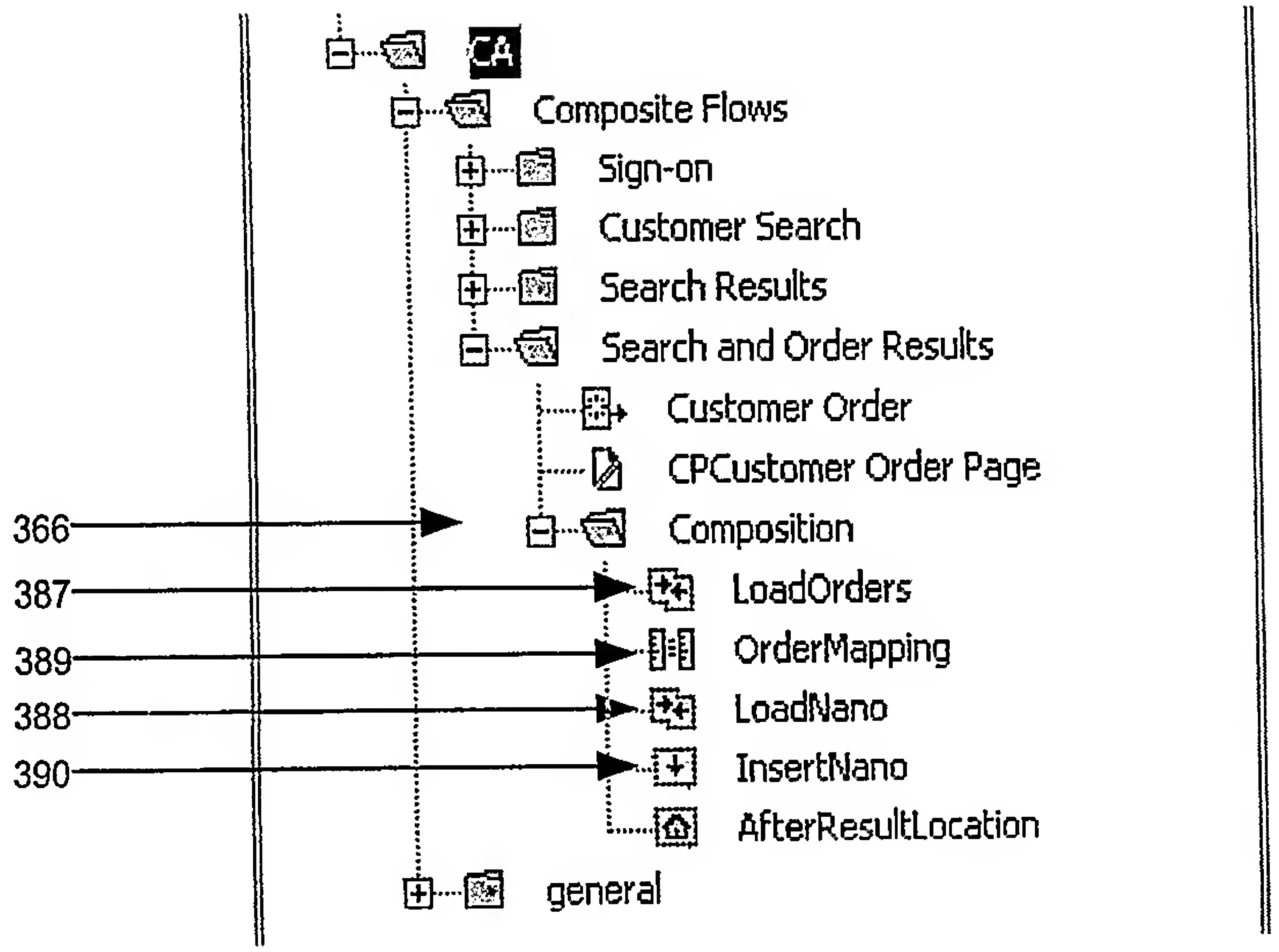
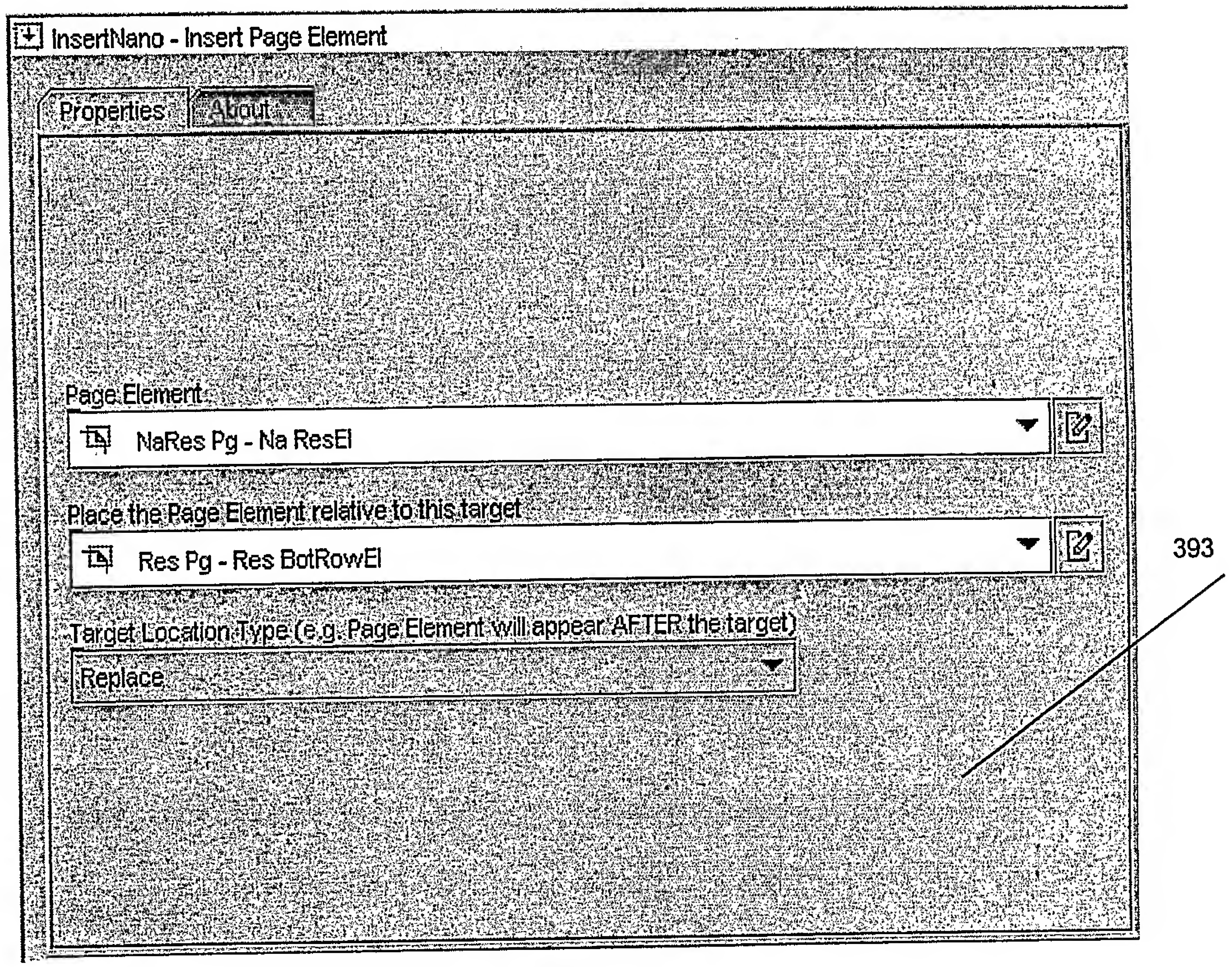


FIG 53



Page Element: NaRes Pg - Na ResEl

Place the Page Element relative to this target: Res Pg - Res BotRowEl

Target Location Type (e.g. Page Element will appear AFTER the target): Replace

FIG 55

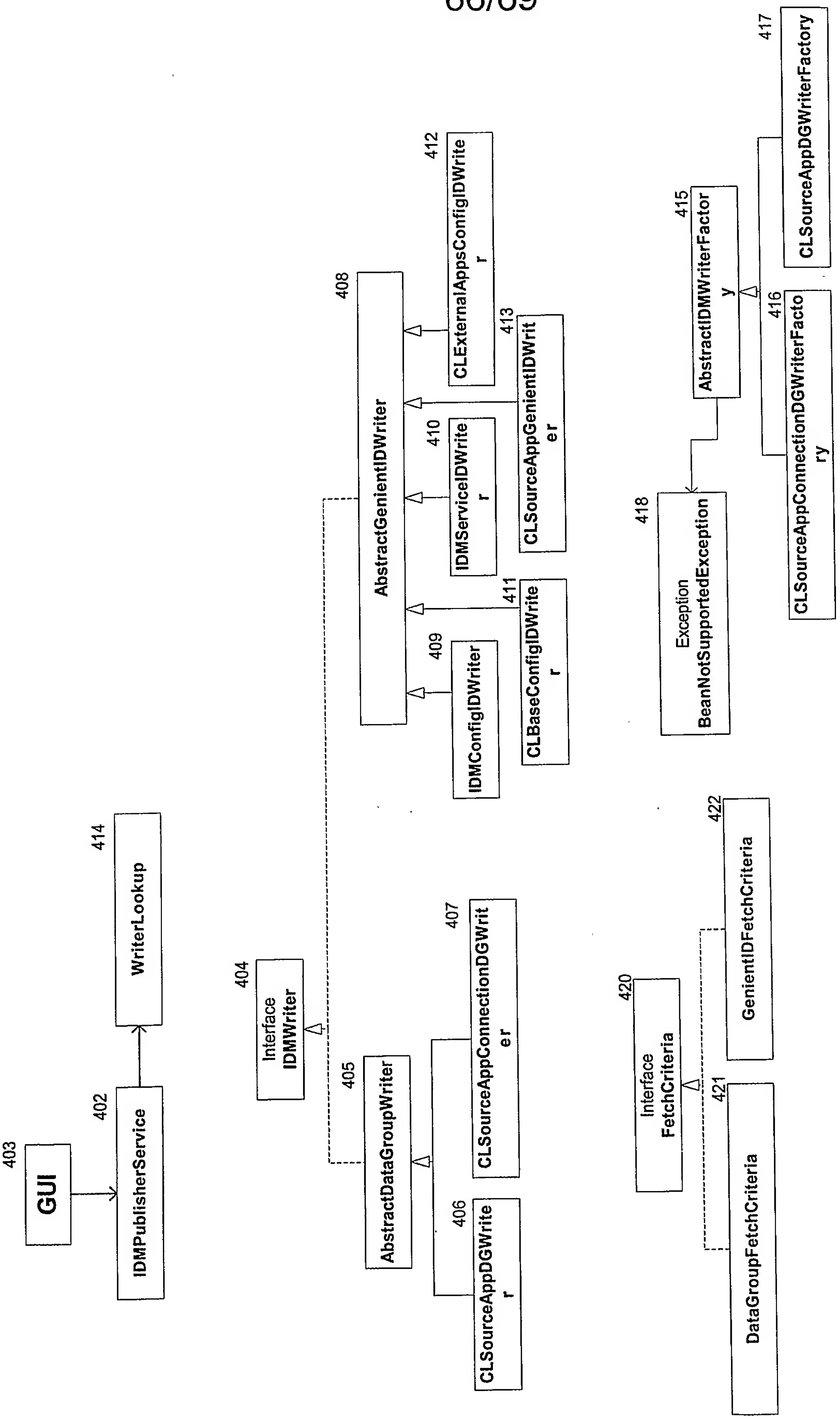

403
GUI
402
IDMPublisherService
414
WriterLookup
404
Interface
IDMWriter
405
AbstractDataGroupWriter
406
CLSourceAppDGWriter
407
CLSourceAppConnectionDGWriter
408
AbstractGenientIDWriter
409
IDMConfigIDWriter
410
IDMServiceIDWriter
411
CLBaseConfigIDWriter
412
CLExternalAppsConfigIDWriter
413
CLSourceAppGenientIDWriter
415
AbstractIDMWriterFactory
416
CLSourceAppConnectionDGWriterFactory
417
CLSourceAppDGWriterFactory
418
Exception
BeanNotSupportedException
420
Interface
FetchCriteria
421
DataGroupFetchCriteria
422
GenientIDFetchCriteria

FIG 56

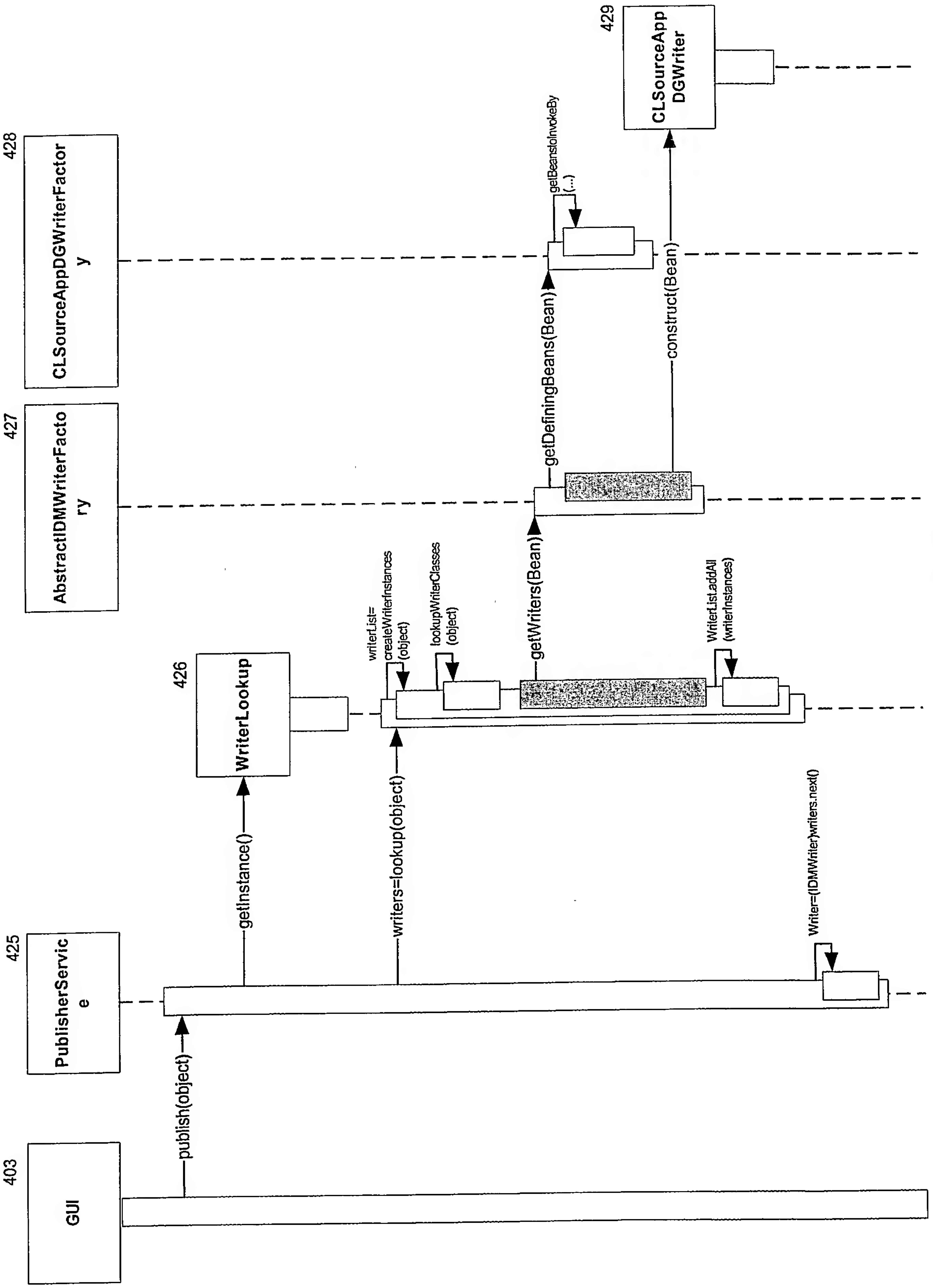

403
GUI
425
PublisherServic
e
426
WriterLookup
427
AbstractIDMWriterFacto
ry
428
CLSourceAppDGWriterFactor
y
429
CLSourceApp
DGWriter
publish(object)
getInstance()
writers=lookup(object)
writerList=
createWriterInstances
(object)
lookupWriterClasses
(object)
getWriters(Bean)
WriterList.addAll
(writerInstances)
getDefiningBeans(Bean)
getBeanstoInvokeBy
(...)
construct(Bean)
Writer=(IDMWriter)writers.next()

FIG 57

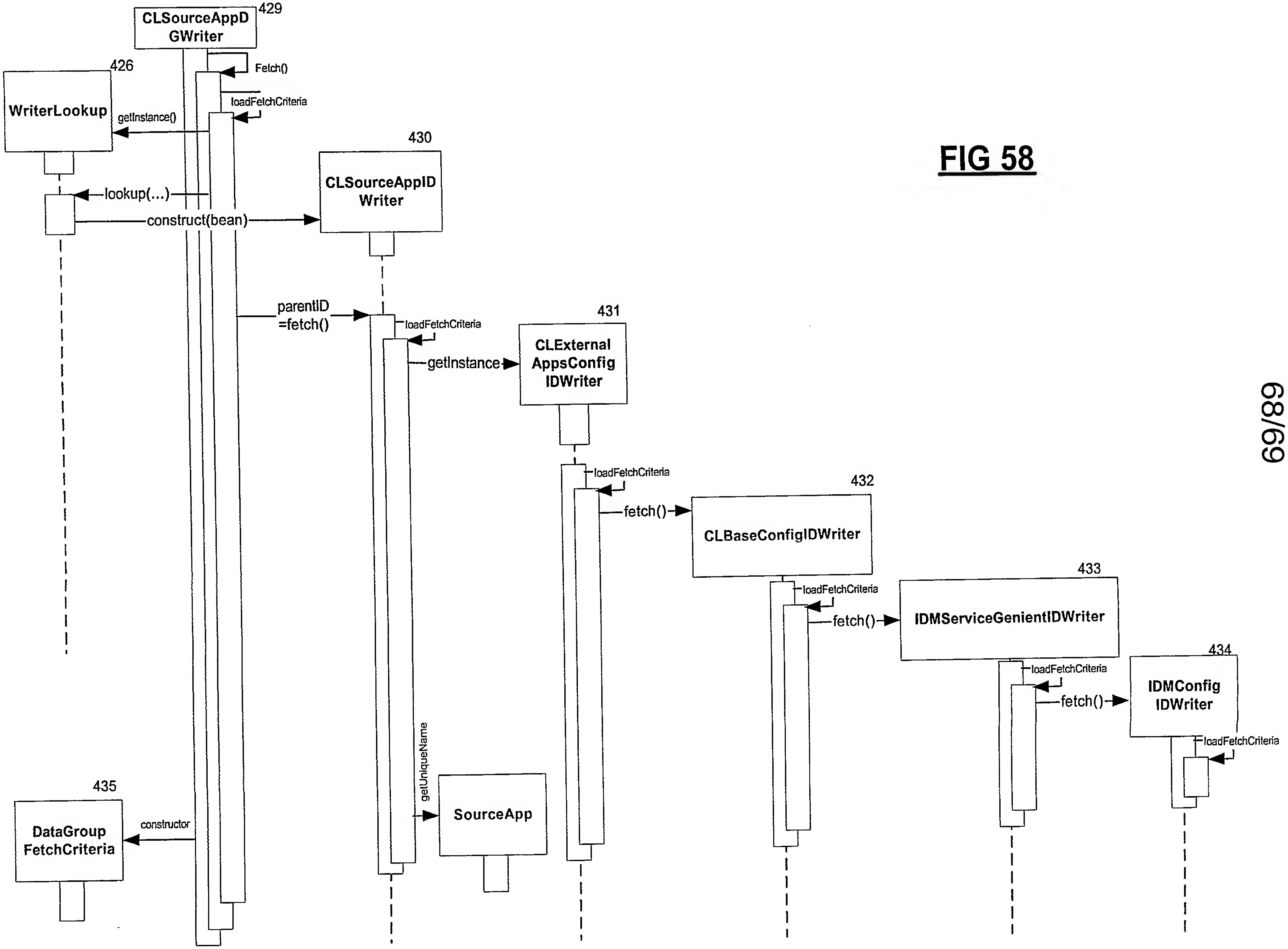

CLSourceAppD GWriter
429
Fetch()
loadFetchCriteria
426
WriterLookup
getInstance()
430
CLSourceAppID Writer
lookup(...)
construct(bean)
parentID =fetch()
loadFetchCriteria
431
CLExternal AppsConfig IDWriter
getInstance
loadFetchCriteria
fetch()
432
CLBaseConfigIDWriter
loadFetchCriteria
fetch()
433
IDMServiceGenientIDWriter
loadFetchCriteria
fetch()
434
IDMConfig IDWriter
loadFetchCriteria
getUniqueName
SourceApp
435
DataGroup FetchCriteria
constructor

FIG 58

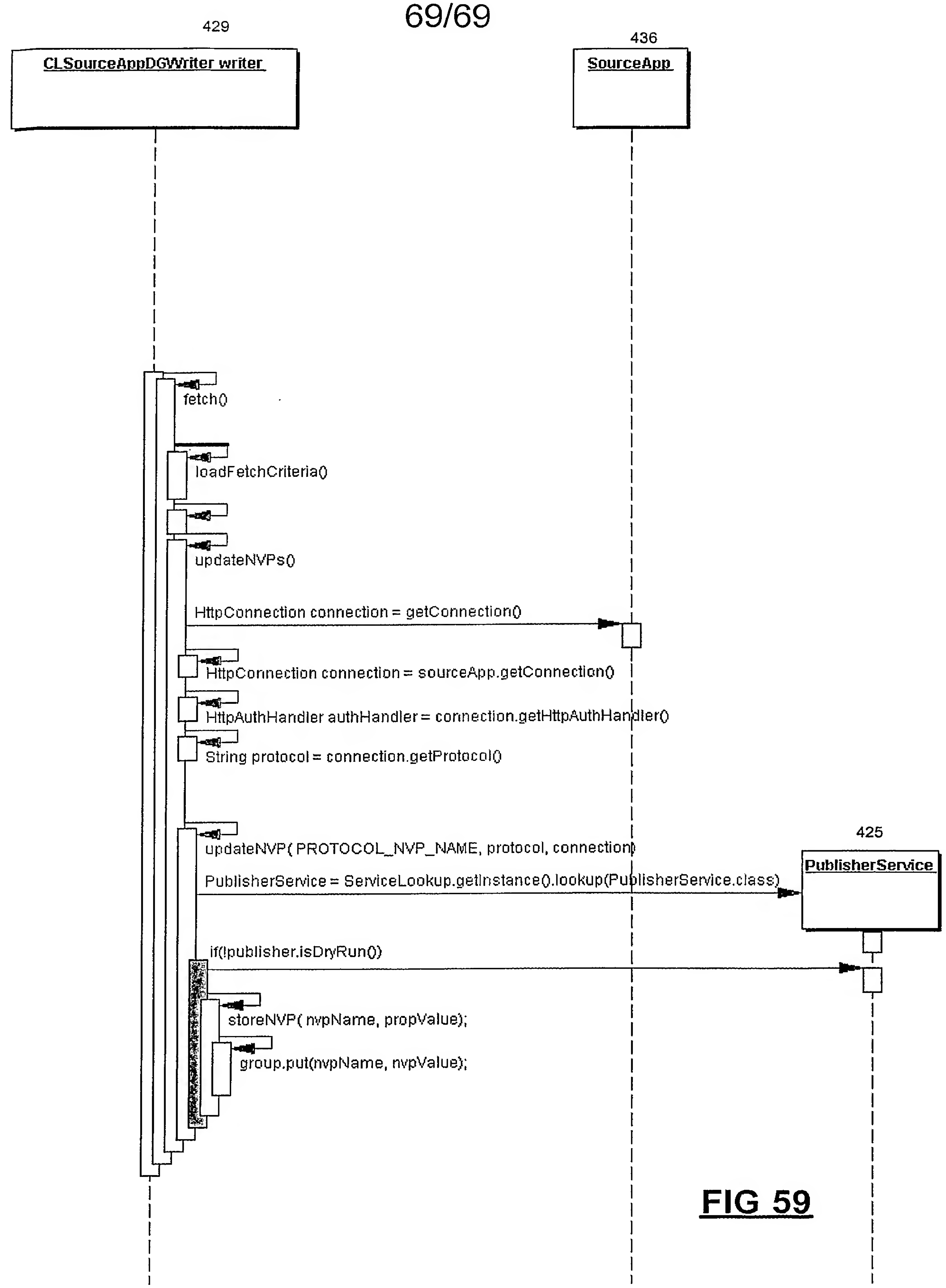

429
CLSourceAppDGWriter writer
436
SourceApp
fetch()
loadFetchCriteria()
updateNVPs()
HttpConnection connection = getConnection()
HttpConnection connection = sourceApp.getConnection()
HttpAuthHandler authHandler = connection.getHttpAuthHandler()
String protocol = connection.getProtocol()
425
updateNVP(PROTOCOL_NVP_NAME, protocol, connection)
PublisherService
PublisherService = ServiceLookup.getInstance().lookup(PublisherService.class)
if(!publisher.isDryRun())
storeNVP(nvpName, propValue);
group.put(nvpName, nvpValue);

FIG 59